

# **KANSAS SOURCE WATER ASSESSMENT:**

## **INDEX OF POTENTIAL DRINKING WATER CONTAMINATION SOURCES**

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By  
Kansas Department of Health and Environment  
Nonpoint Source Section



## PURPOSE

The 1996 amendments to the Safe Drinking Water Act require that all states develop a source water assessment plan and that source water assessments be prepared for all public drinking water systems within the state. To satisfy these amendments, the Nonpoint Source Section developed the ***Kansas Source Water Assessment Program Plan*** (SWAPP). Under the Kansas SWAPP, an assessment of potential sources of pollution that may threaten drinking water sources, within a defined area must be completed.

To aid local public water supply systems during the SWAPP process, the Nonpoint Source Section has developed this reference document, which is intended to provide information on potential pollution concerns associated with a given land use or activity. Additionally, the information included is intended to assist in evaluating whether or not a pollution source is being managed adequately. The document also acts as a referral guide to experts in a given environmental field or discipline. These “experts” may be able to provide additional information regarding regulatory status, potential pollutants, proper chemical and/or waste handling, spill prevention, current remedial activities, etc.

## FORMAT

This document includes the following information:

- ! index of potential drinking water contamination sources;
- ! fact sheets with a description of the potential source, list of associated drinking water standards, regulatory experts, questions to ask, and other experts in the field;
- ! index of expert panel members for a given potential source; and
- ! contact information for the members of the expert panel.

# **INDEX OF POTENTIAL DRINKING WATER CONTAMINATION SOURCES**

## **POTENTIAL SOURCE INDEX**

### **Topics:**

Commercial/Industrial Facilities  
Residential/Municipal  
Agricultural/Rural  
Miscellaneous Sources

### **Individual Source (By Topic):**

#### ***Commercial/Industrial Facilities***

Analytical Laboratories  
Automotive Repair Shops (Body Shops)  
Boat Services/Repair/Refinishing  
Car/Truck Washes  
Cement/Concrete Plants/Asphalt Plants  
Chemical/Petroleum Processing/Storage  
Construction Sites  
Dry Cleaners  
Manufacturing Facilities  
Fleet/Trucking/Bus Terminals  
Food Processing  
Gas Stations  
Graveyards/Cemeteries  
Hardware/Lumber Yards/Parts Stores  
Historic Waste Dumps/Landfills  
Junk/Scrap/Salvage Yards  
Landscape/Lawn Maintenance  
Marinas  
Medical/Dental/Vet Offices  
Metal Plating/Finishing/Fabricating /Machine Shops (Tool and Dye Shops)  
Mines/Gravel Pits  
Office Building/Complex  
Oil/Gas Well Sites/Field Storage Tank Sites  
Parking Lots  
Photo Processing/Printing  
RV/Mini Storage

Railroad Yards/Maintenance/Fueling Areas  
Wood/Pulp/Paper Processing

### ***Residential/Municipal***

Airports (Maintenance/Fueling Areas)  
Apartments and Condominiums  
Camp Grounds/RV Parks  
Cesspools  
Drinking Water Treatment Facilities  
Fairgrounds  
Fire Stations  
Golf Courses/Sports Complexes/Urban Parks  
Highway/Street/Road Maintenance Yards  
Hospitals  
Housing Developments  
Landfills/Dumps  
Public Buildings (i.e. schools, town halls, civic centers)  
Septic Systems (Lagoons, Tanks, Lateral Fields)  
Sewer Lines  
Storm Water Infiltration Basins/Drywells  
Utility Stations/Maintenance Areas  
Waste Transfer/Recycling Centers  
Wastewater Treatment Facilities

### ***Agricultural/Rural***

Auction Lots/Boarding Stables/Fair Grounds  
Animal Feeding Operations/Confined Animal Feeding Operations  
Crops-Irrigated and Non-Irrigated  
Grain Elevators/Coops  
Irrigation/Chemigation Well Pump Sites  
Kennels  
Lagoons and Liquid Waste Disposal (Agricultural)  
Managed Forests/Grass Lands  
On-Farm Pesticide/Fertilizer Storage Facilities  
Rangeland/Grazing Lands  
Rural Homesteads

### ***Miscellaneous Sources***

Abandoned Drinking Water Wells (Conduits For Contamination)

Above-ground Storage Tanks/Underground Storage Tanks

Gas/Oil Pipelines/Oil Fields

Military Installations

Naturally Occurring

Point Sources

Underground Injection Control (UIC) Wells-Class I, II, III, IV, and V

## **FACT SHEETS**

# FACT SHEET

**Topic:** Commercial/Industrial Facilities

**Subject:** Analytical Laboratories

**Description:** Analytical laboratories may include medical research laboratories, pharmaceutical laboratories, environmental laboratories, etc. These laboratories may generate significant quantities of X-ray developers and fixers, infectious wastes, radiological wastes, biological wastes, solvents, drugs, disinfectants, and miscellaneous chemicals. These facilities may be connected to septic systems. Septic systems should only be used to dispose of domestic wastes and should not be used to dispose of hazardous materials.

## Associated National Primary Drinking Water Standards

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Arsenic, Barium, Benzene, Beryllium Powder, Cadmium, Carbon Tetrachloride, Chlorobenzene, Cyanide, 1,2-Dichloroethane, 1,1-Dichloroethylene, cis 1,2-Dichloroethylene, trans 1,2-Dichloroethylene, Dichloromethane, Methylene Chloride, Endrin, Lead, Mercury, Polychlorinated Biphenyls, Selenium, Tetrachloroethylene, Thallium, Thiosulfates, Toluene, 1,1,1-Trichloroethane, Trichloroethylene (TCE), Vinyl Chloride, and Xylene.

## Regulatory

**Experts:** Kansas Department of Health and Environment:  
Bureau of Waste Management  
Department of Health and Environmental Laboratories

**Questions:** Is the facility regulated by KDHE?  
What's the regulatory status of the facility?  
Are there any known releases reported at the facility?  
Has a KDHE project manager been assigned to this facility?  
Is the facility connected to a septic system?  
Are there any other sources of information available for facilities of this type?

## Other

**Experts:** EPA, Office of Pollution Prevention  
KDHE Pollution Prevention  
KSU Pollution Prevention  
EPA RCRA Division  
Local Fire Department

# FACT SHEET

**Topic:** Commercial/Industrial Facilities

**Subject:** Automotive Repair Shops (Body Shops)

**Description:** Daily automotive repair activities often generate significant amounts of waste materials. These wastes may include fuels, antifreeze, used oil, and parts washing solvents. If managed improperly, these wastes may threaten local surface waters and groundwater aquifers. Wastes are often stored in 55-gallon drums or similar containers. These containers must be properly labeled, covered, and stored in a manner to prevent the potential for spillage. These facilities may also utilize above-ground storage tanks (ASTs) and underground storage tanks (USTs). Out of date tanks and faulty secondary containment systems may present a potential threat to drinking water sources. These facilities may be connected to septic systems. Septic systems should only be used to dispose of domestic wastes and should not be used to dispose of hazardous materials.

## Associated National Primary Drinking Water Standards

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Arsenic, Barium, Benzene, Cadmium, Chlorobenzene, Copper, cis 1,2-Dichloroethylene, lead, fluoride, 1,1,1-Trichloroethylene, Dichloromethane, Methylene Chloride, Tetrachloroethylene, Trichloroethylene (TCE), and Xylene (mixed isomers).

## Regulatory

**Experts:** Kansas Department of Health and Environment:  
Bureau of Waste Management  
Bureau of Environmental Remediation, Storage Tank Section

**Questions:** Is the facility regulated by KDHE?  
Is this facility a RCRA Small Quantity Generator of hazardous waste?  
What's the regulatory status of the facility?  
Are there any USTs or leaking USTs at this facility?  
Has a KDHE project manager been assigned to this facility?  
Is the facility connected to a septic system?  
Are there any other sources of information available for facilities of this type?

## Other

**Experts:** EPA Office of Pollution Prevention  
EPA RCRA Division  
Local Fire Department  
KDHE Pollution Prevention  
KSU Pollution Prevention

# FACT SHEET

**Topic:** Commercial/Industrial Facilities

**Subject:** Boat Services/Repair/Refinishing

**Description:** Daily boat repair activities often generate significant amounts of waste materials. These wastes may include fuels, oil, boat septage, wood/fiberglass treatment chemicals, paints, waxes, varnishes, and solvents. If managed improperly, these wastes may threaten local surface waters and groundwater aquifers. Wastes are often stored in 55-gallon drums or similar containers. These containers must be labeled, covered, and stored in a manner to prevent the potential for spillage. These facilities may be connected to septic systems. Septic systems should only be used to dispose of domestic wastes and should not be used to dispose of hazardous materials.

## **Associated National Primary Drinking Water Standards**

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Benzene, Cadmium, cis 1,2-dichloroethylene, Coliform, Cryptosporidium, Dichloromethane, Methylene Chloride, Giardia Lamblia, Lead, Mercury, Nitrate, Nitrite, trans 1,2-Trichloroethylene, Tetrachloroethylene, Trichloroethylene (TCE), Vinyl Chloride, and Viruses.

## **Regulatory**

**Experts:** Kansas Department of Health and Environment Bureau of Waste Management

**Questions:** Is the facility regulated by KDHE?  
Is this facility a RCRA Small Quantity Generator of hazardous waste?  
What's the regulatory status of the facility?  
Are there any USTs or leaking USTs at this facility?  
Has a KDHE project manager been assigned to this facility?  
Is the facility connected to a septic system?  
Are there any other sources of information available for facilities of this type?

## **Other**

**Experts:** EPA Office of Pollution Prevention  
EPA RCRA Division  
Local Fire Department  
KDHE Pollution Prevention  
KSU Pollution Prevention

# FACT SHEET

**Topic:** Commercial/Industrial Facilities

**Subject:** Car/Truck Washes

**Description:** Car and truck washing activities can generate large amounts of waste water. This waste water may contain significant quantities of soap, detergents, waxes, automotive chemicals, and hydrocarbons. Discharge from car/truck washes are usually routed to the sanitary sewer system for eventual treatment by the local waste water treatment facility; however some older car washes may discharge to storm sewers and may threaten local drinking water supplies. Additionally, many of these car/truck washes have an oil/water separator which must be maintained in order to properly pre-treat the effluent. These oil/water separators should also be checked for cracks or leaks to ensure that fluids do not leach into surrounding soils and/or groundwater. Car washes in rural areas may discharge to septic systems which is an illegal activity.

## **Associated National Primary Drinking Water Standards**

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**Potential Contaminant:** Arsenic, Barium, Benzene, pH, Trichloroethylene, Toluene, Turbidity, Xylene (mixed isomers).

## **Regulatory**

**Experts:** Kansas Department of Health and Environment, Bureau of Water, Industrial Programs

**Questions:** Is the facility regulated by KDHE?  
Does the facility have an NPDES Permit?  
What's the regulatory status of the facility?  
Is the facility connected to a septic system?  
Are there any other sources of information available for facilities of this type?

## **Other**

**Experts:** City Wastewater Departments/County Health Departments

# FACT SHEET

**Topic:** Commercial/Industrial Facilities

**Subject:** Cement/Concrete Plants/Asphalt Plants

**Description:** Cement, concrete, and asphalt plants may utilize a number of hazardous chemicals for their processes. These chemicals may include fuels, solvents, and waste oils. If managed improperly, these chemicals and/or wastes may threaten local surface waters and groundwater aquifers. Hazardous chemicals and wastes are often stored in 55-gallon drums or similar containers. These containers must be labeled, covered, and stored in a manner to prevent the potential for spillage. These facilities may also utilize above-ground storage tanks (ASTs) and underground storage tanks (USTs). Out of date tanks and faulty secondary containment systems may present a potential threat to drinking water sources. These facilities may be connected to septic systems. Septic systems should only be used to dispose of domestic wastes and should not be used to dispose of hazardous materials.

## **Associated National Primary Drinking Water Standards**

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Barium, Benzene, Methylene Chloride, Ethylbenzene, Lead, Styrene, Tetrachloroethylene, Toluene, and Xylene (mixed isomers).

## **Regulatory**

**Experts:** Kansas Department of Health and Environment:  
Bureau of Waste Management  
Bureau of Environmental Remediation, Storage Tank Section

**Questions:** Is the facility regulated by KDHE?  
Is this facility a RCRA Small Quantity Generator of hazardous waste?  
What's the regulatory status of the facility?  
Are there any USTs or leaking USTs at this facility?  
Has a KDHE project manager been assigned to this facility?  
Is the facility connected to a septic system?  
Are there any other sources of information available for facilities of this type?

## **Other**

**Experts:** EPA Office of Pollution Prevention  
EPA RCRA Division  
Local Fire Department  
KDHE Pollution Prevention  
KSU Pollution Prevention

# FACT SHEET

**Topic:** Commercial/Industrial Facilities

**Subject:** Chemical/Petroleum Processing/Storage

**Description:** There are many chemical/petroleum processing and/or storage facilities in the State of Kansas. Additionally, chemicals and/or petroleum products from these processing or storage facilities are often routed through piping systems to “transfer stations”. If managed improperly, these processing/storage/transfer facilities may threaten local surface waters and groundwater aquifers. Storage tanks utilized at these facilities must be managed to limit the potential for a release to the environment (i.e. use of secondary containment systems, leak detection, etc.). These facilities may be connected to septic systems. Septic systems should only be used to dispose of domestic wastes and should not be used to dispose of hazardous materials.

## **Associated National Primary Drinking Water Standards**

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Acrylamide, Arsenic, Atrazine, Alachlor, Aluminum (Fume or Dust), Barium, Benzene, Cadmium, Carbofuran, Carbon Tetrachloride, Chlorobenzene, Copper, Cyanide, 2,4-D, 1,2-Dibromoethane, 1,2-Dichlorobenzene, , 1,4-Dichlorobenzene, 1,1-Dichloroethylene, cis 1,2 Dichloroethylene, Methylene Chloride, Di (2-ethylhexyl) adipate, Di (2-ethylhexyl) phthalate, 1,2-Dichloroethane, Dioxin, Endrin, Epichlorohydrin, Ethylbenzene, Hexachlorobenzene, Hexachlorocyclopentadiene, Lead, Mercury, Methoxychlor, Polychlorinated Biphenyls, Selenium, Styrene, Sulfate, Tetrachloroethylene, Toluene, 1,2,4-Trichlorobenzene, 1,1,1-Trichloroethane, Trichloroethylene (TCE), Vinyl Chloride, Xylene (Mixed Isomers), Zinc (Fume or Dust).

## **Regulatory**

**Experts:** Kansas Department of Health and Environment:  
Bureau of Waste Management  
Bureau of Environmental Remediation, Storage Tank Section  
Bureau of Water, Industrial Programs

**Questions:** Is the facility regulated by KDHE?  
What’s the regulatory status of the facility?  
Are there any leaking storage tanks or pipelines at this facility?  
Is the facility connected to a septic system?  
Are there any other sources of information available for facilities of this type?

## **Other**

**Experts:** Kansas Corporation Commission  
KSU Pollution Prevention  
KDHE Pollution Prevention  
EPA Office of Pollution Prevention  
EPA RCRA Division  
Local Fire Department  
KDHE Pollution Prevention

# FACT SHEET

**Topic:** Commercial/Industrial Facilities

**Subject:** Construction Sites

**Description:** Construction sites often create large open areas of exposed soil which are prone to erosion. Additionally, building materials from construction site demolition may contain hazardous constituents, such as asbestos or lead, that may threaten local drinking water supplies. All construction sites 5 acres and larger are required to file a Notice Of Intent (NOI) to comply with the General National Pollutant Discharge Elimination System (NPDES) Permit For Storm Water Runoff From Construction Activities, prior to construction. The General Permit requires a Storm Water Pollution Prevention Plan be written for each site. This plan requires implementation of sediment control practices to limit the amount of soil erosion at a construction site. Sediment control practices may include silt fences, hay bale berms, planting vegetation, etc.

## **Associated National Primary Drinking Water Standards**

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Arsenic, Asbestos, Benzene, Cadmium, Chloride, Copper, Cyanide, cis 1,2-Dichloroethylene, trans 1,2-Dichloroethylene, Methylene Chloride, Fluorides, Lead, Selenium, Tetrachloroethylene, 1,1,1-Trichloroethane, Trichloroethylene (TCE), Turbidity, Xylene (mixed isomers), and Zinc (fume or dust).

## **Regulatory**

**Experts:** Kansas Department of Health and Environment:  
Bureau of Water Industrial Programs

**Questions:** Does the site have an NPDES permit?  
Are there any pollution control measures suggested for this site?  
Are there any other sources of information available for facilities of this type?

## **Other**

**Experts:** EPA Office of Pollution Prevention  
KDHE Pollution Prevention  
KSU Pollution Prevention  
KDHE Bureau of Water Nonpoint Source Section

# FACT SHEET

**Topic:** Commercial/Industrial Facilities

**Subject:** Dry Cleaners

**Description:** Dry cleaners often generate significant amounts of waste materials. These wastes primarily consist of solvents used during the cleaning process. If managed improperly, these wastes may threaten local surface waters and groundwater aquifers. Wastes are often stored in 55-gallon drums or similar containers. These containers must be properly labeled, covered, and stored in a manner to prevent the potential for spillage. These facilities may also utilize above-ground storage tanks (ASTs) and underground storage tanks (USTs). Out of date tanks and faulty secondary containment systems may present a potential threat to drinking water sources. These facilities may be connected to septic systems. Septic systems should only be used to dispose of domestic wastes and should not be used to dispose of hazardous materials.

## Associated National Primary Drinking Water Standards

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Tetrachloroethylene or Perchloroethylene (Perc), 1,1,1-Trichloroethane or Methyl Chloroform, and 1,1,2-Trichloroethane.

## Regulatory

**Experts:** Kansas Department of Health and Environment:  
Bureau of Waste Management  
Bureau of Environmental Remediation, Storage Tank Section

**Questions:** Is the facility regulated by KDHE?  
Is this facility a RCRA Small Quantity Generator of hazardous waste?  
What's the regulatory status of the facility?  
Are there any USTs or leaking USTs at this facility?  
Has a KDHE project manager been assigned to this facility?  
Is the facility connected to a septic system?  
Are there any other sources of information available for facilities of this type?

## Other

**Experts:** EPA Office of Pollution Prevention  
EPA RCRA Division  
Local Fire Department  
KDHE Pollution Prevention  
KSU Pollution Prevention

# FACT SHEET

**Topic:** Commercial/Industrial Facilities

**Subject:** Manufacturing Facilities

**Description:** Manufacturing activities often generate significant amounts of waste materials. These wastes may include fuels, adhesives, used lubricants/oils, and solvents. If managed improperly, these wastes may threaten local surface waters and groundwater aquifers. Wastes are often stored in 55-gallon drums or similar containers. These containers must be properly labeled, covered, and stored in a manner to prevent the potential for spillage. These facilities may also utilize above-ground storage tanks (ASTs) and underground storage tanks (USTs). Out of date tanks and faulty secondary containment systems may present a potential threat to drinking water sources. These facilities may be connected to septic systems. Septic systems should only be used to dispose of domestic wastes and should not be used to dispose of hazardous materials.

## **Associated National Primary Drinking Water Standards**

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Aluminum, Antimony, Arsenic, Barium, Benzene, Cadmium, Chlorobenzene, Copper, Cyanide, Carbon Tetrachloride, 1,2-Dichlorobenzene, 1,2-Dichloroethane, cis 1,2-Dichloroethylene, trans 1,2-Dichloroethylene, Methylene Chloride, Di (2-ethylhexyl) Phthalate, Ethylbenzene, Lead, Mercury, Polychlorinated Biphenols, Selenium, Styrene, Sulfate, Tetrachloroethane, Methyl Chloroform, 1,1,2-Trichloroethane, Trichloroethylene (TCE), Thallium, Toluene, Vinyl Chloride, Xylene (mixed isomers), Zinc (fume or dust).

## **Regulatory**

**Experts:** Kansas Department of Health and Environment:  
Bureau of Waste Management  
Bureau of Environmental Remediation, Storage Tank Section  
Bureau of Water, Industrial Programs

**Questions:** Is the facility regulated by KDHE?  
Is this facility a RCRA Small Quantity Generator of hazardous waste?  
What's the regulatory status of the facility?  
Are there any USTs or leaking USTs at this facility?  
Has a KDHE project manager been assigned to this facility?  
Is the facility connected to a septic system?  
Are there any other sources of information available for facilities of this type?

## **Other**

**Experts:** EPA Office of Pollution Prevention  
EPA RCRA Division  
Local Fire Department  
KDHE Pollution Prevention  
KSU Pollution Prevention

# FACT SHEET

**Topic:** Commercial/Industrial Facilities

**Subject:** Fleet/Trucking/Bus Terminals

**Description:** Daily repair activities at fleet trucking and bus terminals often generate significant amounts of waste materials. These wastes may include fuels, antifreeze, used oil, and parts washing solvents. If managed improperly, these wastes may threaten local surface waters and groundwater aquifers. Wastes are often stored in 55-gallon drums or similar containers. These containers must be properly labeled, covered, and stored in a manner to prevent the potential for spillage. These facilities may also utilize above-ground storage tanks (ASTs) and underground storage tanks (USTs) for fueling activities. Out of date tanks and faulty secondary containment systems may present a potential threat to drinking water sources. These facilities may be connected to septic systems. Septic systems should only be used to dispose of domestic wastes and should not be used to dispose of hazardous materials.

## **Associated National Primary Drinking Water Standards**

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Arsenic, Acrylamide, Barium, Benzene, Benzo (a) Pyrene, Cadmium, Chlorobenzene, Cyanide, Carbon Tetrachloride, 2,4-D, 1,2-Dichlorobenzene, 1,4-Dichlorobenzene, Ethylene Dichloride, cis 1,2-Dichloroethylene, Lead, Fluoride, 1,1,1-Trichloroethylene, Dichloromethane, Methylene Chloride, Di (2-ethylhexyl phthalate), Epichlorohydrin, Heptachlor Epoxide, Lead, Mercury, Methoxychlor, Pentachlorophenol, Propylene Dichloride, Selenium, Styrene, Toxaphene, Perchloroethylene (Perc), Toluene, Methyl Chloroform, Trichloroethylene (TCE), Vinyl Chloride, and Xylene (mixed isomers).

## **Regulatory**

**Experts:** Kansas Department of Health and Environment:  
Bureau of Waste Management  
Bureau of Environmental Remediation, Storage Tank Section

**Questions:** Is the facility regulated by KDHE?  
Is this facility a RCRA Small Quantity Generator of hazardous waste?  
What's the regulatory status of the facility?  
Are there any USTs or leaking USTs at this facility?  
Has a KDHE project manager been assigned to this facility?  
Is the facility connected to a septic system?  
Are there any other sources of information available for facilities of this type?

## **Other**

**Experts:** U.S. EPA Office of Pollution Prevention  
U.S. EPA RCRA Division  
Local Fire Department  
KDHE Pollution Prevention  
Kansas State University Pollution Prevention

# FACT SHEET

**Topic:** Commercial/Industrial Facilities

**Subject:** Food Processing

**Description:** Daily food processing activities often generate significant amounts of waste materials. These wastes may include nitrates, salts, phosphorus, food wastes, chlorine, ammonia, and ethylene glycol. If managed improperly, these wastes may threaten local surface waters and groundwater aquifers. These facilities may be connected to septic systems. Septic systems should only be used to dispose of domestic wastes and should not be used to dispose of hazardous materials.

## Associated National Primary Drinking Water Standards

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Arsenic, Benzene, Cadmium, Copper, Carbon Tetrachloride, Dichloromethane or Methylene Chloride, Lead, Mercury, Picloram, Perchloroethylene (Perc), Toluene, Methyl Chloroform, Trichloroethylene (TCE), Xylene (mixed isomers).

## Regulatory

**Experts:** Kansas Department of Health and Environment:  
Bureau of Waste Management

**Questions:** Is the facility regulated by KDHE?  
Is this facility a RCRA Small Quantity Generator of hazardous waste?  
What's the regulatory status of the facility?  
Has a KDHE project manager been assigned to this facility?  
Is the facility connected to a septic system?  
Are there any other sources of information available for facilities of this type?

## Other

**Experts:** EPA Office of Pollution Prevention  
KDHE Pollution Prevention  
KSU Pollution Prevention  
Kansas State University Extension

# FACT SHEET

**Topic:** Commercial/Industrial Facilities

**Subject:** Gas Stations

**Description:** Gas stations often store large quantities of hazardous chemicals including gasoline, diesel fuel, and antifreeze. If managed improperly, these hazardous chemicals may threaten local surface waters and groundwater aquifers. These facilities may also utilize above-ground storage tanks (ASTs) and underground storage tanks (USTs) for fueling activities. Out of date tanks and faulty secondary containment systems may present a potential threat to drinking water sources. To limit the potential for a release, USTs are required to have overfill protection, corrosion protection, and leak detection systems. These facilities may be connected to septic systems. Septic systems should only be used to dispose of domestic wastes and should not be used to dispose of hazardous materials.

## Associated National Primary Drinking Water Standards

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Benzene, Ethylbenzene, Lead, Methylene Chloride, Methyl Tertiary Butyl Ether (MTBE), Perchloroethylene (Perc), Toluene, Trichloroethylene (TCE), and Xylene (mixed isomers).

## Regulatory

**Experts:** Kansas Department of Health and Environment:  
Bureau of Remediation, Storage Tank Section

**Questions:** Is the facility regulated by KDHE?  
What's the regulatory status of the facility?  
Are there any USTs or leaking USTs at this facility?  
Has a KDHE project manager been assigned to this facility?  
Is the facility connected to a septic system?  
Are there any other sources of information available for facilities of this type?

## Other

**Experts:** Local Fire Department

# FACT SHEET

**Topic:** Commercial/Industrial Facilities

**Subject:** Graveyards/Cemeteries

**Description:** Graveyards and cemeteries encompass large areas of land and may contribute significantly to nonpoint source pollution. Fertilizers and pesticides are the primary pollutants of concern from graveyards and cemeteries. Best management practices (BMPs) to control these pollutants include avoiding application during rainy periods and following directions on the chemical bottle label.

## **Associated National Primary Drinking Water Standards**

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Alachlor, Chlordane, Metalachlor, 2,4-D, Dalapon, Lindane, Nitrate, Nitrite, Phosphorus, Total Coliforms, and Viruses.

**Experts:** Kansas Department of Health and Environment:  
Bureau of Water, Nonpoint Source Section

**Questions:** What water quality protection measures or “BMPs” should be in place?  
Are there any other sources of information available for facilities of this type?

**Other Experts:** Kansas Department of Agriculture  
Kansas State University Extension

# FACT SHEET

**Topic:** Commercial/Industrial Facilities

**Subject:** Hardware/Lumber Yards/Parts Stores

**Description:** Hardware stores, lumber yards, and parts stores often store small quantities of hazardous chemicals. These chemicals may include petroleum hydrocarbons, heating oil, wood treating products, paints, thinners, solvents, and sealants. If managed improperly, these chemicals may threaten local surface waters and groundwater aquifers. These chemicals should be stored in a manner which limits the potential for a release to the environment and should not be stored near any storm water drains.

## **Associated National Primary Drinking Water Standards**

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Aluminum, Barium, Benzene, Cadmium, Chlorobenzene, Copper, Methylene Chloride, Di (2-ethylhexyl) Adipate, Di (2-ethylhexyl) phthalate, 1,4-Dichlorobenzene, Ethylbenzene, Lead, Mercury, Perchloroethylene (Perc), 1,1,1-Trichloroethane, Trichloroethylene (TCE), Toluene, and Xylene (mixed isomers).

**Experts:** Local Fire Department

**Questions:** Has the facility been inspected recently?  
Are there any outstanding compliance issues or violations for this facility?

# FACT SHEET

**Topic:** Commercial/Industrial Facilities

**Subject:** Historic Waste Dumps/Landfills

**Description:** Historic waste dumps and landfills may contain a wide variety of hazardous chemicals and may have the potential to leach these chemicals into nearby drinking water supply sources. Currently, waste dumps and landfills are designed with liners to protect the underlying groundwater; however, older landfills and waste dumps may not have liners and may pose a threat to the underlying groundwater aquifers.

## Associated National Primary Drinking Water Standards

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Atrazine, Alachlor, Carbofuran, cis 1,2-Dichloroethylene, trans 1,2-Dichloroethylene, Diquat, Dalapon, Glyphosate, Methylene Chloride, Nitrate, Nitrite, Oxamyl, Sulfate, Simazine, Perchloroethylene (perc), and Trichloroethylene (TCE).

## Regulatory

**Experts:** Kansas Department of Health and Environment:  
Bureau of Waste Management  
Bureau of Environmental Remediation  
Local Planning and Zoning Departments

**Questions:** Is the facility regulated by KDHE?  
What's the regulatory status of the facility?  
Has a KDHE project manager been assigned to this facility?  
Are there any other sources of information available for facilities of this type?

## Other

**Experts:** EPA CERCLA Division  
EPA RCRA Division  
Kansas Water Office

# FACT SHEET

**Topic:** Commercial/Industrial Facilities

**Subject:** Junk/Scrap/Salvage Yards

**Description:** Junk yards and salvage yards often contain large numbers of automotive parts and miscellaneous parts. These parts may still contain significant quantities of fuel, antifreeze, and oils. To limit the potential for a release, these automotive parts should be drained and the liquids should be disposed of in accordance with local disposal requirements.

## **Associated National Primary Drinking Water Standards**

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Barium, Benzene, Copper, Dalapon, cis 1,2-Dichloroethylene, Diquat, Glyphosate, Lead, Polychlorinated Biphenyls, Sulfate, Simazine, Trichloroethylene (TCE), and Perchloroethylene (perc).

## **Regulatory**

**Experts:** Kansas Department of Health and Environment:  
Bureau of Waste Management  
Local Planning and Zoning Departments

**Questions:** Is the facility regulated by KDHE?  
What's the regulatory status of the facility?  
Has a KDHE project manager been assigned to this facility?  
Are there any other sources of information available for facilities of this type?

## **Other**

**Experts:** City/County Health Departments  
EPA Office of Pollution Prevention  
KDHE Pollution Prevention  
Kansas State University Pollution Prevention

# FACT SHEET

**Topic:** Commercial/Industrial Facilities

**Subject:** Landscape/Lawn Maintenance

**Description:** Landscaping and lawn maintenance may contribute significantly to nonpoint source pollution. Fertilizers and pesticides are the primary pollutants of concern from landscaping and lawn maintenance activities. Best management practices (BMPs) to control these pollutants include avoiding application during rainy periods and following directions on the chemical bottle label. Additionally, lawn clippings should not be dumped into any surface waters. The increased nutrient load from the lawn clippings can actually decrease dissolved oxygen levels in surface waters and degrade aquatic habitat.

## **Associated National Primary Drinking Water Standards**

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Arsenic, Atrazine, Benzene, Chlorobenzene, Carbofuran, 2,4-D, Diquat, Dalapon, Glyphosate, Lead, Methoxychlor, Nitrate, Nitrite, Picloram, Simazine, and Turbidity.

## **Regulatory**

**Experts:** Kansas Department of Agriculture

**Questions:** What water quality protection measures or “BMPs” can be used to limit nonpoint source pollution from lawn maintenance and landscaping activities?  
Are there any other sources of information available for facilities of this type?

## **Other**

**Experts:** EPA Office of Pollution Prevention  
KDHE Pollution Prevention  
KSU Pollution Prevention  
KDHE Bureau of Water, Nonpoint Source Section  
City/County Health Departments  
Kansas State University Extension

# FACT SHEET

**Topic:** Commercial/Industrial Facilities

**Subject:** Marinas

**Description:** Daily boat maintenance activities at marinas can generate significant amounts of waste materials. These wastes may include boat septage, fuels, used oil, wood treatment chemicals, paints, and thinners. If managed improperly, these wastes may threaten local surface waters and groundwater aquifers. Additionally, marinas may also utilize above-ground storage tanks (ASTs) for boat fueling activities. Out of date tanks and faulty secondary containment systems may present a potential threat to drinking water sources. These facilities may be connected to septic systems. Septic systems should only be used to dispose of domestic wastes and should not be used to dispose of hazardous materials.

## **Associated National Primary Drinking Water Standards**

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Benzene, Cadmium, cis 1,2-dichloroethylene, Coliform, Cryptosporidium, Dichloromethane, Methylene Chloride, Giardia Lamblia, Lead, Mercury, Nitrate, Nitrite, trans 1,2-Trichloroethylene, Tetrachloroethylene, Trichloroethylene (TCE), Vinyl Chloride, and Viruses.

## **Regulatory**

**Experts:** Kansas Department of Health and Environment:  
Bureau of Environmental Remediation, Storage Tank Section

**Questions:** Are there any ASTs at this facility?  
What's the regulatory status of the facility?  
Has a KDHE project manager been assigned to this facility?  
Is the facility connected to a septic system?  
Are there any other sources of information available for facilities of this type?

## **Other**

**Experts:** U.S. EPA Office of Pollution Prevention  
Bureau of Water, Nonpoint Source Section  
Local Fire Department  
KDHE Pollution Prevention  
Kansas State University Pollution Prevention

# FACT SHEET

**Topic:** Commercial/Industrial Facilities

**Subject:** Medical/Dental/Vet Offices

**Description:** Daily activities at medical, dental, and vet offices often generate significant amounts of waste materials. These wastes may include X-ray developers and fixers, infectious wastes, radiological wastes, biological wastes, disinfectants, asbestos, beryllium, dental acids, and miscellaneous chemicals. If managed improperly, these wastes may threaten local surface waters and groundwater aquifers. Hazardous waste containers must be properly labeled, covered, and stored in a manner to prevent the potential for spillage. These facilities may be connected to septic systems. Septic systems should only be used to dispose of domestic wastes and should not be used to dispose of hazardous materials.

## **Associated National Primary Drinking Water Standards**

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Arsenic, Acrylamide, Barium, Benzene, Cadmium, Copper, Cyanide, Carbon Tetrachloride, Dichloromethane or Methylene Chloride, Ethylene Dichloride, Lead, Mercury, Methoxychlor, Methyl Chloroform, Radionuclides, Selenium, Silver, Tetrachloroethylene, 2,4,5-TP (Silvex), Thallium, and Xylene (mixed isomers).

## **Regulatory**

**Experts:** Kansas Department of Health and Environment:  
Bureau of Waste Management  
Division of Health and Environmental Laboratories

**Questions:** Is the facility regulated by KDHE?  
Is this facility a RCRA Small Quantity Generator of hazardous waste?  
What's the regulatory status of the facility?  
Has a KDHE project manager been assigned to this facility?  
Is the facility connected to a septic system?  
Are there any other sources of information available for facilities of this type?

## **Other**

**Experts:** City/County Health Departments

# FACT SHEET

**Topic:** Commercial/Industrial Facilities

**Subject:** Metal Plating/Finishing/Fabricating/Machine Shops (Tool and Dye Shops)

**Description:** Daily activities at machine shops (tool and dye shops) often generate significant amounts of waste materials. These wastes may include sodium and hydrogen cyanide, metallic salts, hydrochloric acid, sulfuric acid, chromic acid, boric acid, paint wastes, heavy metals, plating wastes, oils, and solvents. If managed improperly, these wastes may threaten local surface waters and groundwater aquifers. Wastes are often stored in 55-gallon drums or similar containers. These containers must be properly labeled, covered, and stored in a manner to prevent the potential for spillage. These facilities may also utilize above-ground storage tanks (ASTs) and underground storage tanks (USTs) for chemical storage. Out of date tanks and faulty secondary containment systems may present a potential threat to drinking water sources. These facilities may be connected to septic systems. Septic systems should only be used to dispose of domestic wastes and should not be used to dispose of hazardous materials.

## Associated National Primary Drinking Water Standards

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Antimony, Aluminum, Arsenic, Barium, Benzene, Cadmium, Carbon Tetrachloride, Chlorobenzene, Chromium, Copper, Cyanide, 1,4-Dichlorobenzene, cis 1,2-Dichloroethylene, trans 1,2-Dichloroethylene, Methylene Chloride, Di (2-ethylhexyl) adipate, Ethylbenzene, Lead, Mercury, Polychlorinated Biphenyls, Pentachlorophenol, Selenium, Styrene, Sulfate, Tetrachloroethylene, Thallium, Toluene, 1,1,1-Trichloroethane, 1,1,2-Trichloroethane, Trichloroethylene (TCE), Vinyl Chloride, Xylene (mixed isomers), and Zinc (fume or dust).

## Regulatory

**Experts:** Kansas Department of Health and Environment:  
Bureau of Waste Management  
Bureau of Environmental Remediation, Storage Tank Section  
Bureau of Water, Industrial Programs

**Questions:** Is the facility regulated by KDHE?  
Is this facility a RCRA Small Quantity Generator of hazardous waste?  
Does the facility have an NPDES permit for industrial process water?  
What's the regulatory status of the facility?  
Are there any USTs or leaking USTs at this facility?  
Has a KDHE project manager been assigned to this facility?  
Is the facility connected to a septic system?  
Are there any other sources of information available for facilities of this type?

## Other

**Experts:** EPA Office of Pollution Prevention  
EPA RCRA Division  
Local Fire Department  
KDHE Pollution Prevention  
KSU Pollution Prevention

# FACT SHEET

**Topic:** Commercial/Industrial Facilities

**Subject:** Mines/Gravel Pits

**Description:** Mine spills or tailings may contain metals, acids, highly corrosive mineralized waters, metal sulfides, and other hazardous and nonhazardous chemicals. Runoff from mines and gravel pits can affect underlying groundwater aquifers, as well as nearby surface water bodies. After mining activities cease, mines and gravel pits should be properly closed in accordance with local, state, and federal regulations. Closure activities may include plugging mine shafts, backfilling pits, re-vegetation, etc.

## Associated National Primary Drinking Water Standards

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Arsenic, Lead, Selenium, pH, Sulfate, Tetrachloroethylene, 1,1,1-Trichloroethane, Turbidity.

## Regulatory

**Experts:** Kansas Department of Health and Environment:  
Bureau of Environmental Remediation, Surface Mining Section  
State Conservation Commission

**Questions:** Is the facility regulated by KDHE?  
What closure activities are required at this site?  
What's the regulatory status of the facility?  
Has a KDHE project manager been assigned to this facility?  
Are there any other sources of information available for facilities of this type?

## Other

**Experts:** KDHE Bureau of Water, Nonpoint Source Section

# FACT SHEET

**Topic:** Commercial/Industrial Facilities

**Subject:** Office Building/Complex

**Description:** Office building complexes may have a significant impact on nearby surface waters. These complexes often have large impervious parking areas which may contribute to nonpoint source pollution. Specifically, water that runs across these parking areas may pick up automotive fluids and may become heated, which can have a significant affect on receiving streams and lakes. Additionally, landscaping and lawn maintenance activities may add nutrients and pesticides to nearby water bodies. Best management practices or “BMPs” to limit nonpoint source pollution from parking areas may include buffer strips, oil/water separators, storm water retention ponds, etc.

## **Associated National Primary Drinking Water Standards**

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Barium, Benzene, Cadmium, Copper, 2,4-D, Diazinon, 1,2-Dichlorobenzene, Dichloromethane, Methylene Chloride, Diquat, 1,2-Dichloroethane, Ethylbenzene, Glyphosate, Lead, Mercury, Selenium, Simazine, Perchloroethylene (Perc), Methyl Chloroform, Trichloroethylene (TCE), Vinyl Chloride, and Xylene (mixed isomers).

**Experts:** Kansas Department of Health and Environment:  
Bureau of Water, Nonpoint Source Section

**Questions:** What water quality protection measures or “BMPs” should be in place?  
Are there any other sources of information available for facilities of this type?

## **Other**

**Experts:** City/County Health Department

# FACT SHEET

**Topic:** Commercial/Industrial Facilities

**Subject:** Oil/Gas Well Sites

**Description:** Oil and gas well sites may have significant impacts on nearby water resources. Oil and gas production may release oil, salt water, and natural gases into groundwater aquifers. According to State law, every person who drills a well or test hole, for any purpose, that penetrates formations containing oil, gas, fresh water, mineralized water, or valuable minerals, shall case or seal off these formations to effectively prevent migration of oil, gas, or water from or into strata that would be damaged by this migration. Wells may also act as a conduit for the migration of surface contaminants to groundwater aquifers. Additionally, many well sites have environmental problems after abandonment. These problems may include surface soils contamination with salt and/or oils and the subsequent lack of vegetation. These areas of exposed soil are prone to soil erosion and are often difficult to re-vegetate.

## Associated National Primary Drinking Water Standards

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Acrylamide, Arsenic, Atrazine, Alachlor, Aluminum (Fume or Dust), Barium, Benzene, Cadmium, Carbofuran, Carbon Tetrachloride, Chlorobenzene, Copper, Cyanide, 2,4-D, 1,2-Dibromoethane, 1,2-Dichlorobenzene, , 1,4-Dichlorobenzene, 1,1-Dichloroethylene, cis 1,2-Dichloroethylene, Methylene Chloride, Di (2-ethylhexyl) Adipate, Di (2-ethylhexyl) Phthalate, 1,2-Dichloroethane, Dioxin, Endrin, Epichlorohydrin, Ethylbenzene, Hexachlorobenzene, Hexachlorocyclopentadiene, Lead, Mercury, Methoxychlor, Polychlorinated Biphenyls, Selenium, Styrene, Sulfate, Tetrachloroethylene, Toluene, 1,2,4-Trichlorobenzene, 1,1,1-Trichloroethane, Trichloroethylene (TCE), Vinyl Chloride, Xylene (Mixed Isomers), and Zinc (Fume or Dust).

## Regulatory

**Experts:** Kansas Corporation Commission

**Questions:** Has there been a release reported for this site?  
What water quality protection measures should be in place?  
Are there any other oil/gas wells in the vicinity?  
Are there any other sources of information available for facilities of this type?

## Other

**Experts:** KDHE Storage Tank Section  
KDHE Bureau of Waste Management  
KDHE Bureau of Water Nonpoint Source Section

# FACT SHEET

**Topic:** Commercial/Industrial Facilities

**Subject:** Parking Lots

**Description:** Large impervious parking areas may contribute significantly to nonpoint source pollution. Water that runs across these parking areas may pick up automotive fluids which may eventually accumulate in nearby streams and lakes. Also, water can become heated as it comes into contact with asphalt parking areas. Heated water has a lower capacity to carry dissolved oxygen and may promote algae blooms. Additionally, landscaping and lawn maintenance activities in and around parking areas may add nutrients and pesticides to nearby water bodies. Best management practices or “BMPs” to limit nonpoint source pollution from parking areas may include buffer strips, oil/water separators, storm water retention ponds, etc..

## **Associated National Primary Drinking Water Standards**

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Barium, Benzene, Cadmium, Copper, 2,4-D, Diazinon, 1,2-Dichlorobenzene, Dichloromethane, Methylene Chloride, Diquat, 1,2-Dichloroethane, Ethylbenzene, Glyphosate, Lead, Mercury, Selenium, Simazine, Perchloroethylene (Perc), Methyl Chloroform, Trichloroethylene (TCE), Vinyl Chloride, and Xylene (mixed isomers).

## **Regulatory**

**Experts:** Kansas Department of Health and Environment:  
Bureau of Water, Nonpoint Source Section

**Questions:** What water quality protection measures or “BMPs” should be in place?  
Are there any other sources of information available for facilities of this type?

## **Other**

**Experts:** City/County Health Department

# FACT SHEET

**Topic:** Commercial/Industrial Facilities

**Subject:** Photo Processing/Printing

**Description:** Daily photo processing and printing activities often generate significant amounts of waste materials. These wastes may include biosludges, silver sludges, cyanides, solvents, inks, dyes, oils, and photographic chemicals. If managed improperly, these wastes may threaten local surface waters and groundwater aquifers. Waste containers must be properly labeled, covered, and stored in a manner to prevent the potential for spillage. These facilities may be connected to septic systems. Septic systems should only be used to dispose of domestic wastes and should not be used to dispose of hazardous materials.

## Associated National Primary Drinking Water Standards

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Acrylamide, Aluminum, Arsenic, Barium, Benzene, Cadmium, Carbon Tetrachloride, Chlorobenzene, Copper, Cyanide, 1,1-Dichloroethylene, cis 1,2-Dichloroethylene, trans 1,2-Dichloroethylene, Methylene Chloride, Di (2-ethylhexyl) phthalate, 1,2-Dichlorobenzene, 1,4-Dichlorobenzene, 1,2-Dichloroethane, Heptachlor Epoxide, Hexachlorobenzene, Lead, Lindane, Mercury, Methoxychlor, Propylene Dichloride, Selenium, Styrene, Tetrachloroethylene, 1,1,1-Trichloroethane, Toluene, 1,1,2-Trichloroethane, Trichloroethylene (TCE), Vinyl Chloride, Xylene (mixed isomers), and Zinc.

## Regulatory

**Experts:** Kansas Department of Health and Environment:  
Bureau of Waste Management

**Questions:** Is the facility regulated by KDHE?  
Is this facility a RCRA Small Quantity Generator of hazardous waste?  
What's the regulatory status of the facility?  
Has a KDHE project manager been assigned to this facility?  
Is the facility connected to a septic system?  
Are there any other sources of information available for facilities of this type?

## Other

**Experts:** EPA Office of Pollution Prevention  
EPA RCRA Division  
Local Fire Department  
KDHE Pollution Prevention  
KSU Pollution Prevention

# FACT SHEET

**Topic:** Commercial/Industrial Facilities

**Subject:** RV/Mini Storage

**Description:** Hazardous chemicals may be stored in RV and “mini” storage facilities. These chemicals may include waste oils, solvents, gasoline and diesel fuel, and antifreeze. If managed improperly, these wastes may threaten local surface waters and groundwater aquifers. Waste containers must be properly labeled, covered, and stored in a manner to prevent the potential for spillage.

## **Associated National Primary Drinking Water Standards**

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Arsenic, Barium, Benzene, Cyanide, 2,4-D, Endrin, Ethylbenzene, Lead, Methoxychlor, Methylene Chloride, Methyl Tertiary Butyl Ether (MTBE), Perchloroethylene (Perc), Toluene, Trichloroethylene (TCE), and Xylene (mixed isomers)

## **Regulatory**

**Experts:** Kansas Department of Health and Environment:  
Bureau of Waste Management

**Questions:** Has there been a release reported at this facility?  
What’s the regulatory status of the facility?  
Has a KDHE project manager been assigned to this facility?  
Are there any other sources of information available for facilities of this type?

## **Other**

**Experts:** EPA Office of Pollution Prevention  
KDHE Bureau of Water Nonpoint Source Section  
EPA RCRA Division  
Local Fire Department  
KDHE Pollution Prevention  
KSU Pollution Prevention

# FACT SHEET

**Topic:** Commercial/Industrial Facilities

**Subject:** Railroad Yards/Maintenance/ Fueling Facilities

**Description:** There are many hazardous chemicals and wastes associated with railroad yards, railroad maintenance activities, and railroad fueling activities. These chemicals and wastes may include: diesel fuel; herbicides for right of ways; creosote for preserving railroad ties; solvents; waste oils; and paints. If managed improperly, these chemicals and wastes may threaten local surface waters and groundwater aquifers. Wastes are often stored in 55-gallon drums or similar containers. These containers must be properly labeled, covered, and stored in a manner to prevent the potential for spillage. These facilities may also utilize above-ground storage tanks (ASTs) and underground storage tanks (USTs) for fueling activities. Out of date tanks and faulty secondary containment systems may present a potential threat to drinking water sources. These facilities may be connected to septic systems. Septic systems should only be used to dispose of domestic wastes and should not be used to dispose of hazardous materials.

## Associated National Primary Drinking Water Standards

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Atrazine, Barium, Benzene, Cadmium, Dalapon, 1,4-Dichlorobenzene, cis 1,2-Dichloroethylene, trans 1,2-Dichloroethylene, Methylene Chloride, Lead, Mercury, Perchloroethylene (Perc), and Trichloroethylene (TCE).

## Regulatory

**Experts:** Kansas Department of Health and Environment:  
Bureau of Waste Management  
Bureau of Environmental Remediation, Storage Tank Section

**Questions:** Is the facility regulated by KDHE?  
Is this facility a RCRA Small Quantity Generator of hazardous waste?  
What's the regulatory status of the facility?  
Are there any USTs or leaking USTs at this facility?  
Has a KDHE project manager been assigned to this facility?  
Is the facility connected to a septic system?  
Are there any other sources of information available for facilities of this type?

## Other

**Experts:** EPA RCRA Division  
Local Fire Department  
Kansas State University Pollution Prevention

# FACT SHEET

**Topic:** Commercial/Industrial Facilities

**Subject:** Wood/Pulp/Paper Processing

**Description:** There are many hazardous chemicals and wastes associated with the paper manufacturing process. These chemicals and wastes may include: metals; acids; minerals; sulfides; organic sludges; sodium hydroxide; chlorine; hypochlorite; chlorine dioxide; hydrogen peroxide; methanol; paint sludges; solvents; creosote; and gluing wastes. If managed improperly, these chemicals and wastes may threaten local surface waters and groundwater aquifers. Waste and chemical containers must be properly labeled, covered, stored and handled in a manner to prevent the potential for spillage.

## **Associated National Primary Drinking Water Standards**

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Arsenic, Barium, Benzene, Cadmium, Carbon Tetrachloride, Copper, Methylene Chloride, Dioxin, 1,2-Dichloroethane, Ethylbenzene, Lead, Mercury, Polychlorinated Biphenyls, Selenium, Styrene, Perchloroethylene (Perc) Trichloroethylene (TCE), Toluene, 1,1,1-Trichloroethane, and Xylene (mixed isomers).

## **Regulatory**

**Experts:** Kansas Department of Health and Environment:  
Bureau of Waste Management  
Bureau of Water, Industrial Programs

**Questions:** Is the facility regulated by KDHE?  
Does the facility have an NPDES permit for industrial waste water processes?  
Is this facility a RCRA Small Quantity Generator of hazardous waste?  
What's the regulatory status of the facility?  
Has a KDHE project manager been assigned to this facility?  
Are there any other sources of information available for facilities of this type?

## **Other**

**Experts:** EPA Office of Pollution Prevention  
EPA RCRA Division  
Local Fire Department  
KDHE Pollution Prevention  
Kansas State University Pollution Prevention

# FACT SHEET

**Topic:** Residential/Municipal

**Subject:** Airports (Maintenance/Fueling Areas)

**Description:** Daily maintenance and fueling activities that occur at airports often generate significant amounts of waste materials. These wastes may include jet fuels, de-icers, diesel fuel, chlorinated solvents, automotive wastes, heating oil, and building wastes. If managed improperly, these wastes may threaten local surface waters and groundwater aquifers. Airport maintenance and fueling areas may also utilize both above-ground storage tanks (ASTs) and underground storage tanks (USTs). Out of date tanks and faulty secondary containment systems may present a potential threat to drinking water sources. These facilities may be connected to septic systems. Septic systems should only be used to dispose of domestic wastes and should not be used to dispose of hazardous materials.

## Associated National Primary Drinking Water Standards

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Arsenic, Barium, Benzene, Cadmium, Carbon Tetrachloride, cis 1,2-Dichloroethylene, Dichloromethane, Methylene Chloride, Ethyl benzene, Lead, Mercury, Selenium, Tetrachloroethylene, 1,1,1-Trichloroethane, Trichloroethylene (TCE), Xylene (Mixed Isomers).

## Regulatory

**Experts:** Kansas Department of Health and Environment:  
Bureau of Waste Management  
Bureau of Environmental Remediation, Storage Tank Section,

**Questions:** Is the facility regulated by KDHE?  
What's the regulatory status of the facility?  
Have there any USTs or leaking USTs at this facility?  
Has a KDHE project manager been assigned to this facility?  
Is the facility connected to a septic system?  
Are there any other sources of information available for facilities of this type?

## Other

**Experts:** EPA RCRA Division  
Local Fire Department  
KSU Pollution Prevention

# FACT SHEET

**Topic:** Residential/Municipal

**Subject:** Apartments and Condominiums

**Description:** Apartments and condominiums may have a significant impact on nearby surface waters. These complexes often have large impervious parking areas which may contribute to nonpoint source pollution. Specifically, water that runs across these parking areas may pick up automotive fluids and may become heated, which can have a significant affect on receiving streams and lakes. Additionally, landscaping and lawn maintenance activities may add nutrients and pesticides to nearby water bodies. Best management practices or “BMPs” to limit nonpoint source pollution from parking areas may include buffer strips, oil/water separators, storm water retention ponds, etc.

## **Associated National Primary Drinking Water Standards**

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Barium, Benzene, Cadmium, Copper, 2,4-D, Diazinon, 1,2-Dichlorobenzene, Dichloromethane, Methylene Chloride, Diquat, 1,2-Dichloroethane, Ethylbenzene, Glyphosate, Lead, Mercury, Selenium, Simazine, Perchloroethylene (Perc), Methyl Chloroform, Trichloroethylene (TCE), Vinyl Chloride, and Xylene (mixed isomers).

**Experts:** Kansas Department of Health and Environment:  
Bureau of Water, Nonpoint Source Section

**Questions:** What water quality protection measures or “BMPs” should be in place?  
Are there any other sources of information available for facilities of this type?

**Other**  
**Experts:** City/County Health Department

# FACT SHEET

**Topic:** Residential/Municipal

**Subject:** Camp Grounds/RV Parks

**Description:** If managed improperly, activities at camp grounds and RV parks can contribute pollution to nearby water resources. Potential contaminants may include: septage; gasoline; boat fuels; pesticides; and household hazardous wastes from RVs. Recommended water quality protection measures for camp grounds and RV parks may include regular maintenance of septic systems and/or lagoons and disposal of hazardous chemicals in accordance with local, state, and federal regulations. These facilities may be connected to septic systems. Septic systems should only be used to dispose of domestic wastes and should not be used to dispose of hazardous materials.

## **Associated National Primary Drinking Water Standards**

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Benomyl, Coliform, Cryptosporidium, Diquat, Dalapon, Giardia Lamblia, Glyphosate, Isopropanol, Nitrate, Nitrite, Picloram, Sulfate, Simazine, Turbidity, Vinyl Chloride, and Viruses.

**Experts:** Kansas Department of Health and Environment:  
Bureau of Water, Nonpoint Source Section

**Questions:** What are the recommended water quality control measures for this facility?  
Is the facility connected to a septic system?  
Are there any other sources of information available for facilities of this type?

**Other**  
**Experts:** City/County Health Departments  
Local Environmental Protection Programs

# FACT SHEET

**Topic:** Residential/Municipal

**Subject:** Cesspools

**Description:** A capacity cesspool is a “drywell” serving multiple dwellings, community, or regional, or other devices that receive sanitary wastes, containing human excreta, which have an open bottom and sometimes perforated sides. Cesspools have the potential to leach pollutants to underlying groundwater aquifers. According to new EPA regulations, existing large capacity cesspools must be closed by April 5, 2005 and new construction of large capacity cesspools is prohibited.

## **Associated National Primary Drinking Water Standards**

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Atrazine, Alachlor, Carbofuran, Coliform, Cryptosporidium, Diquat, Dalapon, Giardia Lamblia, Glyphosate, Nitrate, Nitrite, Oxamyl, Picloram, Sulfate, Simazine, Vinyl Chloride, and Viruses.

## **Regulatory**

**Experts:** Kansas Department of Health and Environment:  
Bureau of Water, Industrial Programs

**Questions:** What has been disposed of in the cesspool?  
Is this cesspool in the process of being closed?  
Are there any existing compliance issues regarding this cesspool?  
Are there any other sources of information available for facilities of this type?

## **Other**

**Experts:** Bureau of Water, Nonpoint Source Section  
City/County Health Department  
Local Environmental Protection Program

# FACT SHEET

**Topic:** Residential/Municipal

**Subject:** Drinking Water Treatment Facilities

**Description:** There are many chemicals associated with the water purification process at drinking water treatment facilities including chlorine and fluoride. Additionally, pesticides may be used in and around the drinking water treatment facility. If managed improperly, these chemicals may threaten local surface waters and groundwater aquifers. Chemical containers must be properly labeled, covered, stored and handled in a manner to prevent the potential for spillage.

## **Associated National Primary Drinking Water Standards**

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Atrazine, Benzene, Cadmium, Cyanide, Fluoride, Lead, Polychlorinated Biphenyls, Toluene, Total Trihalomethanes, and Methyl Chloroform.

## **Regulatory**

**Experts:** Kansas Department of Health and Environment:  
Bureau of Water, Public Water Supply Programs

**Questions:** Is the facility regulated by KDHE?  
What's the regulatory status of the facility?  
Are there any other sources of information available for facilities of this type?

## **Other**

**Experts:** City/County Health Departments

# FACT SHEET

**Topic:** Residential/Municipal

**Subject:** Fairgrounds

**Description:** Fairgrounds often house large numbers of livestock for short periods of time. If managed improperly, pollutants from livestock wastes can threaten local water resources. Pollutants from livestock waste may include bacteria and nutrients. Livestock wastes should be cleaned out of feeding and stable areas and either applied to farm fields or composted. Additionally, large quantities of human waste may be collected in fairground porta-potties, lagoons, and/or septic systems. These human wastes should be managed properly to protect local water resources. Hazardous materials should not be disposed of in septic systems.

## **Associated National Primary Drinking Water Standards**

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Ammonia, Coliform, Cryptosporidium, Giardia Lamblia, Nitrate, Nitrite, Sulfate, Phosphate, and Viruses.

## **Regulatory**

**Experts:** Kansas Department of Health and Environment:  
Bureau of Water, Livestock Waste Section

**Questions:** Is the facility regulated by KDHE?  
Are there any outstanding compliance issues at this site?  
Is the facility connected to a septic system?  
Are there any other sources of information available for facilities of this type?

## **Other**

**Experts:** City/County Health Departments  
KDHE Bureau of Water Nonpoint Source Section

# FACT SHEET

**Topic:** Residential/Municipal

**Subject:** Fire Stations

**Description:** Fire stations often store many chemicals including: automotive fluids for vehicle maintenance; flame retardant chemicals; and hydrocarbons for test burns. If managed improperly, these chemicals and wastes may threaten local surface waters and groundwater aquifers. Waste and chemical containers must be properly labeled, covered, stored and handled in a manner to prevent the potential for spillage. Most fire departments are trained in chemical storage and handling procedures. These facilities may be connected to septic systems. Septic systems should only be used to dispose of domestic wastes and should not be used to dispose of hazardous materials.

## **Associated National Primary Drinking Water Standards**

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Arsenic, Acrylamide, Barium, Benzene, Beryllium Powder, Cadmium, Carbon Tetrachloride, Chlorobenzene, Cyanide, 2,4-D, 1,2-Dichlorobenzene, 1,4-Dichlorobenzene, Methylene Chloride, Di (2-ethylhexyl) phthalate, 1,2-Dichloroethane, Endothall, Endrin, 1,2-Dibromoethane, Lead, Lindane, Mercury, Methoxychlor, Selenium, Toluene, Methyl Chloroform, Trichloroethylene (TCE), Vinyl Chloride, and Xylene (mixed isomers).

## **Regulatory**

**Experts:** State Fire Marshal's Office

**Questions:** Are hazardous and flammable chemicals stored properly at this facility?  
Is the facility connected to a septic system?  
Are there any other sources of information available for facilities of this type?

## **Other**

**Experts:** City/County Health Departments  
KDHE Pollution Prevention  
Kansas State University Pollution Prevention  
U.S. EPA Office of Pollution Prevention

# FACT SHEET

**Topic:** Residential/Municipal

**Subject:** Golf Courses/Sports Complexes/Urban Parks

**Description:** Landscaping and lawn maintenance activities at golf courses, sports complexes, and urban parks may contribute significantly to nonpoint source pollution. Fertilizers and pesticides are the primary pollutants of concern from landscaping and lawn maintenance activities. Best management practices (BMPs) to control these pollutants include avoiding application during rainy periods and following directions on the chemical bottle label. Additionally, lawn clippings should not be dumped into any surface waters. The increase nutrient load from the lawn clippings can actually decrease dissolved oxygen levels in surface waters and degrade aquatic habitat.

## **Associated National Primary Drinking Water Standards**

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Arsenic, Atrazine, Benzene, Chlorobenzene, Carbofuran, 2,4-D, Diquat, Dalapon, Glyphosate, Lead, Methoxychlor, Nitrate, Nitrite, Picloram, Simazine, and Turbidity.

## **Regulatory**

**Experts:** Kansas Department of Agriculture Plant Health Division

**Questions:** What water quality protection measures or “BMPs” can be used to limit nonpoint source pollution from lawn maintenance and landscaping activities?  
Are there any other sources of information available for facilities of this type?

## **Other**

**Experts:** Kansas State University Pollution Prevention  
City/County Health Departments  
KDHE Bureau of Water Nonpoint Source Section

# FACT SHEET

**Topic:** Residential/Municipal

**Subject:** Highway/Street/Road Maintenance Yards

**Description:** Daily vehicle maintenance and repair activities often generate significant amounts of waste materials. These wastes may include fuels, antifreeze, used oil, and parts washing solvents. If managed improperly, these wastes may threaten local surface waters and groundwater aquifers. Wastes are often stored in 55-gallon drums or similar containers. These containers must be properly labeled, covered, and stored in a manner to prevent the potential for spillage. These facilities may also utilize above-ground storage tanks (ASTs) and underground storage tanks (USTs) for vehicle fueling. Out of date tanks and faulty secondary containment systems may present a potential threat to drinking water sources. Road maintenance yards often include piles of road salt during the winter months. These piles should be covered or contained in a manner which is protective of nearby water resources. These facilities may be connected to septic systems. Septic systems should only be used to dispose of domestic wastes and should not be used to dispose of hazardous materials.

## Associated National Primary Drinking Water Standards

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Arsenic, Acrylamide, Barium, Benzene, Benzo (a) Pyrene, Cadmium, Chlorobenzene, Cyanide, Carbon Tetrachloride, 2,4-D, 1,2-Dichlorobenzene, 1,4-Dichlorobenzene, Ethylene Dichloride, cis 1,2-Dichloroethylene, Lead, Fluoride, 1,1,1-Trichloroethylene, Dichloromethane, Methylene Chloride, Di (2-ethylhexyl phthalate), Epichlorohydrin, Heptachlor Epoxide, Lead, Mercury, Methoxychlor, Pentachlorophenol, Propylene Dichloride, Selenium, Styrene, Toxaphene, Perchloroethylene (Perc), Toluene, Methyl Chloroform, Trichloroethylene (TCE), Vinyl Chloride, and Xylene (mixed isomers).

## Regulatory

**Experts:** Kansas Department of Transportation  
KDHE Bureau of Waste Management  
KDHE Bureau of Environmental Remediation, Storage Tank Section

**Questions:** Is the facility regulated by KDHE?  
Is this facility a RCRA Small Quantity Generator of hazardous waste?  
Are there any ASTs or USTs present at this facility?  
What's the regulatory status of the facility?  
Is the facility connected to a septic system?  
Are there any other sources of information available for facilities of this type?

## Other

**Experts:** KDHE Bureau of Water, Nonpoint Source Section  
EPA RCRA Division  
Local Fire Department

# FACT SHEET

**Topic:** Residential/Municipal

**Subject:** Hospitals

**Description:** Daily activities at hospitals often generate significant amounts of waste materials. These wastes may include X-ray developers and fixers, infectious wastes, radiological wastes, biological wastes, disinfectants, asbestos, beryllium, dental acids, and miscellaneous chemicals. If managed improperly, these wastes may threaten local surface waters and groundwater aquifers. Hazardous waste containers must be properly labeled, covered, and stored in a manner to prevent the potential for spillage.

## **Associated National Primary Drinking Water Standards**

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Arsenic, Acrylamide, Barium, Benzene, Cadmium, Copper, Cyanide, Carbon Tetrachloride, Dichloromethane or Methylene Chloride, Ethylene Dichloride, Lead, Mercury, Methoxychlor, Methyl Chloroform, Radionuclides, Selenium, Silver, Tetrachloroethylene, 2,4,5-TP (Silvex), Thallium, and Xylene (mixed isomers).

## **Regulatory**

**Experts:** Kansas Department of Health and Environment:  
Bureau of Waste Management  
Division of Health and Environmental Laboratories

**Questions:** Is the facility regulated by KDHE?  
Is this facility a RCRA Small Quantity Generator of hazardous waste?  
What's the regulatory status of the facility?  
Has a KDHE project manager been assigned to this facility?  
Are there any other sources of information available for facilities of this type?

## **Other**

**Experts:** City/County Health Departments

# FACT SHEET

**Topic:** Residential/Municipal

**Subject:** Housing Developments

**Description:** Housing developments can add significant amounts of pollutants to nearby water resources. These pollutants may include: fecal coliform bacteria from pet wastes; household hazardous waste; soaps and rinsate from car washing activities; and nutrients and pesticides from lawn maintenance activities. Sediment runoff from new housing development construction sites may also flow into nearby water resources.

## **Associated National Primary Drinking Water Standards**

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Atrazine, Alachlor, Coliform, Cryptosporidium, Carbofuran, Diquat, Dalapon, Giardia Lamblia, Glyphosate, Dichloromethane or Methylene Chloride, Nitrate, Nitrite, Picloram, Simazine, Trichloroethylene (TCE), Turbidity, Vinyl Chloride, and Viruses.

## **Regulatory**

**Experts:** City Public Works/Planning Departments

**Questions:** What water quality protection measures or “BMPs” can be used to limit nonpoint source pollution from lawn maintenance and landscaping activities?  
Are there any other sources of information available for facilities of this type?

## **Other**

**Experts:** Bureau of Water, Nonpoint Source Section  
City/County Health Departments  
Local Environmental Protection Program  
KSU Pollution Prevention  
KSU Cooperative Extension

# FACT SHEET

**Topic:** Residential/Municipal

**Subject:** Landfills/Dumps

**Description:** Dumps and landfills may contain a wide variety of hazardous chemicals and may have the potential to leach these chemicals into nearby drinking water supply sources. Currently, waste dumps and landfills are designed with liners to protect the underlying groundwater; however, older landfills and waste dumps may not have liners and may pose a threat to the underlying groundwater aquifers.

## Associated National Primary Drinking Water Standards

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Arsenic, Atrazine, Alachlor, Barium, Benzene, Cadmium, Carbofuran, cis 1,2-Dichloroethylene, trans 1,2-Dichloroethylene, Diquat, Dalapon, Glyphosate, Lead, Lindane, Mercury, Methylene Chloride, Nitrate, Nitrite, Oxamyl, Selenium, Sulfate, Simazine, Perchloroethylene (perc), and Trichloroethylene (TCE).

## Regulatory

**Experts:** Kansas Department of Health and Environment:  
Bureau of Waste Management  
Bureau of Environmental Remediation  
City/County Solid Waste Authorities  
Local Planning and Zoning Departments

**Questions:** Is the facility regulated by KDHE?  
What's the regulatory status of the facility?  
Has a KDHE project manager been assigned to this facility?  
Are there any other sources of information available for facilities of this type?

## Other

**Experts:** EPA CERCLA Division  
EPA RCRA Division  
Kansas Water Office

# FACT SHEET

**Topic:** Residential/Municipal

**Subject:** Public Buildings

**Description:** Public buildings may include schools, town halls, civic centers, etc. Potential sources for water contamination from public buildings include: machinery/vehicle maintenance waste; gasoline/heating oil; general building wastes; and pesticides. These chemicals and wastes should be stored in a manner protective of local water resources.

## Associated National Primary Drinking Water Standards

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Arsenic, Acrylamide, Barium, Benzene, Beryllium Powder, Cadmium, Carbon Tetrachloride, Chlorobenzene, Cyanide, 2,4-D, 1,2-Dichlorobenzene, 1,4-Dichlorobenzene, Dichloromethane, Methylene Chloride, Di (2-ethylhexyl) Phthalate, 1,2-Dichloroethane, Endothall, Endrin, 1,2-Dibromomethane, Lead, Lindane, Mercury, Methoxychlor, Selenium, Toluene, 1,1,1-Trichloroethane, Trichloroethylene (TCE), Vinyl Chloride, and Xylene (mixed isomers).

## Regulatory

**Experts:** Kansas Department of Health and Environment:  
Bureau of Waste Management  
City/County Public Works/Planning Departments

**Questions:** Is the building or facility regulated by KDHE?  
Are there any above-ground storage tanks (ASTs) or underground storage tanks (USTs) at the site?  
What's the regulatory status of the facility?  
Are there any other sources of information available for facilities of this type?

## Other

**Experts:** City/County Health Departments  
Local Environmental Protection Programs  
U.S. EPA Office of Pollution Prevention  
KDHE Pollution Prevention  
Kansas State University Pollution Prevention

# FACT SHEET

**Topic:** Residential/Municipal

**Subject:** Septic Systems/Single Family Lagoons/Septic Tanks/ Lateral Fields

**Description:** A septic system is a “well” that is used to emplace sanitary waste below the surface and is typically comprised of a septic tank and subsurface fluid distribution system or disposal system. Many septic systems are not properly maintained and are failing. Failing septic systems can leach bacteria, viruses, and nutrients into nearby water resources.

## **Associated National Primary Drinking Water Standards**

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Atrazine, Alachlor, Carbofuran, Coliform, Cryptosporidium, Diquat, Dalapon, Giardia Lamblia, Glyphosate, Nitrate, Nitrite, Oxamyl, Picloram, Sulfate, Simazine, Vinyl Chloride, and Viruses.

**Experts:** Kansas Department of Health and Environment:  
Bureau of Water, Nonpoint Source Section  
City/County Health Departments

**Questions:** Are there any known failing septic systems in the area?  
Are there any outstanding compliance issues or complaints regarding a particular system?  
Are there any other sources of information available for facilities of this type?

**Other Experts:** Local Environmental Protection Program  
KSU Pollution Prevention

# FACT SHEET

**Topic:** Residential/Municipal

**Subject:** Sewer Lines

**Description:** Sewer lines consist of sanitary sewer lines and storm sewer lines. Sanitary sewer lines usually collect domestic wastes from households, commercial buildings, etc. and transfer the wastes to a centralized treatment plant. Old sanitary sewer lines can become cracked and leach sewage to the subsurface. Additionally, some older sanitary sewer lines may lead directly to the storm sewer and nearby surface waters. Storm sewer lines primarily route storm water runoff to nearby streams, lakes, or rivers. Illicit connections to the storm sewer and illegal discharges/dumping can transfer pollutants from the storm sewer system to the receiving water body.

## **Associated National Primary Drinking Water Standards**

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Coliform, Cryptosporidium, Diquat, Dalapon, Giardia Lamblia, Glyphosate, Nitrate, Nitrite, Oxamyl, Picloram, Sulfate, Simazine, Vinyl Chloride, and Viruses.

## **Regulatory**

**Experts:** Kansas Department of Health and Environment:  
Bureau of Water, Municipal Programs

**Questions:** Are there any NPDES permits that may affect the quality of receiving water bodies?  
Have there been any leaks and/or upgrades to the sewer system?  
How long is the current sewer system designed to last?  
Are there any other sources of information available for facilities of this type?

## **Other**

**Experts:** City/County Health Departments  
Local Environmental Protection Programs  
KDHE Bureau of Water, Nonpoint Source Section

# FACT SHEET

**Topic:** Residential/Municipal

**Subject:** Storm Water Infiltration Basins/Drywells

**Description:** A storm water infiltration basin or drywell is a well or basin completed above the water table so that its bottom and sides are typically dry except when receiving fluids. Storm water infiltration basins and drywells are common place in many parking lots. Storm water infiltration basins and drywells can act as a conduit for nonpoint source pollutants to reach groundwater aquifers. These pollutants may include automotive fluids from parking areas and nutrients and/or pesticides from nearby landscaping activities.

## **Associated National Primary Drinking Water Standards**

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Atrazine, Alachlor, Coliform, Cryptosporidium, Carbofuran, Chlorine, Diquat, Dalapon, Giardia Lamblia, Glyphosate, Methylene Chloride, Nitrate, Nitrite, Nitrosamine, Oxamyl, Phosphates, Picloram, Simazine, Trichloroethylene (TCE), Turbidity, Vinyl Chloride, and Viruses.

## **Regulatory**

**Experts:** Kansas Department of Health and Environment:  
Bureau of Water, Industrial Programs

**Questions:** Are there any NPDES permits that may affect the quality of receiving water bodies?  
Have there been any releases reported into the storm water infiltration system?  
What best management practices are in place to treat the storm water prior to discharge?  
Are there any other sources of information available for facilities of this type?

## **Other**

**Experts:** City/County Health Departments  
Local Environmental Protection Programs  
Bureau of Water, Nonpoint Source Section

# FACT SHEET

**Topic:** Residential/Municipal

**Subject:** Utility Stations/Maintenance Areas

**Description:** Daily utility repair activities often generate significant amounts of chemicals and waste materials. These chemicals and wastes may include: PCBs from transformers; oils; solvents; acids; metal plating solutions; and pesticides for right of ways. If managed improperly, these chemicals and wastes may threaten local surface waters and groundwater aquifers. Chemicals and wastes are often stored in 55-gallon drums or similar containers. These containers must be properly labeled, covered, and stored in a manner to prevent the potential for spillage.

## Associated National Primary Drinking Water Standards

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Arsenic, Barium, Benzene, Cadmium, Chlorobenzene, Cyanide, 2,4-D, 1,4-Dichlorobenzene, 1,2-Dichloroethane, cis 1,2-Dichloroethylene, trans 1,2-Dichloroethylene, Methylene Chloride, Lead, Mercury, Picloram, Toluene, 1,1,2,2-Tetrachloroethane, Perchloroethylene (Perc), Trichloroethylene (TCE), and Xylene (mixed isomers).

## Regulatory

**Experts:** Kansas Department of Health and Environment:  
Bureau of Waste Management  
Bureau of Environmental Remediation, Storage Tank Section  
Kansas Department of Agriculture

**Questions:** Is the facility regulated by KDHE?  
Is this facility a RCRA Small Quantity Generator of hazardous waste?  
Are there any ASTs or USTs present at this facility?  
What's the regulatory status of the facility?  
Are there any other sources of information available for facilities of this type?

## Other

**Experts:** EPA RCRA Division  
Local Fire Department  
KSU Pollution Prevention

# FACT SHEET

**Topic:** Residential/Municipal

**Subject:** Waste Transfer/Recycling Centers

**Description:** Waste transfer stations and recycling centers congregate large quantities of solid wastes. If managed improperly, residues from commercial and residential solid wastes may leach into nearby water resources. These facilities may be connected to septic systems. Septic systems should only be used to dispose of domestic wastes and should not be used to dispose of hazardous materials.

## **Associated National Primary Drinking Water Standards**

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Coliform, Cryptosporidium, Giardia Lamblia, Nitrate, Nitrite, Vinyl Chloride, and Viruses.

## **Regulatory**

**Experts:** Kansas Department of Health and Environment:  
Bureau of Waste Management

**Questions:** Is the facility regulated by KDHE?  
What's the regulatory status of the facility?  
Has a KDHE project manager been assigned to this facility?  
Is the facility connected to a septic system?  
Are there any other sources of information available for facilities of this type?

## **Other**

**Experts:** City/County Health Departments  
EPA RCRA Division  
KDHE Pollution Prevention  
Kansas State University Pollution Prevention  
EPA Office of Pollution Prevention

# FACT SHEET

**Topic:** Residential/Municipal

**Subject:** Wastewater Treatment Facilities

**Description:** There are many pollutants associated with the wastewater treatment process. These pollutants may include: municipal wastewater; sludge; treatment chemicals; nitrates; heavy metals; coliform and non-coliform bacteria; and non-hazardous wastes. If managed improperly, these pollutants may threaten local surface waters and groundwater aquifers. Many wastewater treatment facilities discharge significant quantities of nutrients to receiving surface waters. The loading of excess nutrients can lead to algae blooms and low dissolved oxygen in receiving waters. Discharges from wastewater treatment facilities are regulated under a National Pollution Discharge Elimination System permit (NPDES).

## **Associated National Primary Drinking Water Standards**

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Cadmium, Coliform, Cryptosporidium, cis 1,2-Dichloroethylene, trans 1,2-Dichloroethylene, Methylene Chloride, Fluoride, Giardia Lamblia, Lead, Mercury, Nitrate, Perchloroethylene (Perc), Selenium, Sulfate, Trichloroethylene (TCE), Vinyl Chloride, and Viruses.

## **Regulatory**

**Experts:** Kansas Department of Health and Environment:  
Bureau of Water, Municipal Programs  
Bureau of Water, Industrial Programs

**Questions:** Is the facility regulated by KDHE?  
Are there any outstanding compliance issues at this facility?  
Are there any other sources of information available for facilities of this type?

## **Other**

**Experts:** City/County Health Departments/Public Works  
KDHE Bureau of Water, Nonpoint Source Section

# FACT SHEET

**Topic:** Agricultural/Rural

**Subject:** Auction Lots/Boarding Stables/Fair Grounds

**Description:** Auction lots, boarding stables, and fair grounds often house significant numbers of livestock for extended periods. Nonpoint source pollution from these sources can occur when rain or snow contact the ground surface and carry livestock wastes into nearby storm sewers, lakes, and streams. If managed improperly, livestock waste from these kinds of facilities can be a significant source of fecal coliform bacteria and nutrients. Additionally, improper use of pesticides can cause water quality impairments. These facilities may be connected to septic systems. Septic systems should only be used to dispose of domestic wastes and should not be used to dispose of hazardous materials.

## **Associated National Primary Drinking Water Standards**

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Coliform Bacteria, Cryptosporidium, Giardia Lamblia, Nitrate, Nitrite, Sulfate, Turbidity, and Viruses.

## **Regulatory**

**Experts:** Kansas Department of Health and Environment:  
Bureau of Water, Livestock Waste Section  
Kansas Department of Agriculture

**Questions:** Is the facility permitted by KDHE?  
What's the regulatory status of the facility?  
Are there any outstanding compliance issues?  
Has a KDHE project manager been assigned to this facility?  
Is the facility connected to a septic system?  
Are there any other sources of information available for facilities of this type?

## **Other**

**Experts:** County Conservation Districts  
Natural Resource Conservation Service (NRCS)  
KSU Extension  
KDHE Bureau of Water Nonpoint Source Section

# FACT SHEET

**Topic:**           **Agricultural/Rural**

**Subject:**       **Animal Feeding Operations/Confined Animal Feeding Operations**

**Description:** An animal feeding operation is a lot or facility where: animals have been, are, or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12 month period; and crops, vegetation, forage growth or post-harvest residues are not sustained in the normal growing season over any portion of the lot or facility. There are thousands of animal feeding operations and confined animal feeding operations (CAFOs) in the State of Kansas. Nonpoint source pollution from these sources can occur when rain or snow contact the ground surface and carry livestock wastes into nearby storm sewers, lakes, and streams. If managed improperly, livestock waste from these kinds of facilities can be a significant source of fecal coliform bacteria and nutrients. Any facility with an animal unit capacity greater than 300 or more must register with KDHE. Any facility with an animal unit capacity of 1,000 or more must obtain a Livestock Waste Management Permit from KDHE.

## **Associated National Primary Drinking Water Standards**

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Coliform Bacteria, Cryptosporidium, Giardia Lambia, Nitrate, Nitrite, Sulfate, Turbidity, and Viruses.

## **Regulatory**

**Experts:**       Kansas Department of Health and Environment:  
Bureau of Water, Livestock Waste Section

**Questions:**   Is the facility permitted by KDHE?  
What's the regulatory status of the facility?  
Are there any outstanding compliance issues regarding this facility?  
Has a KDHE project manager been assigned to this facility?  
Are there any other sources of information available for facilities of this type?

## **Other**

**Experts:**       County Conservation Districts  
National Resource Conservation Service (NRCS)  
Kansas State University Extension  
Kansas Rural Center  
KDHE Bureau of Water Nonpoint Source Section

# FACT SHEET

**Topic:** Agricultural/Rural

**Subject:** Crops (Irrigated and Non-Irrigated)

**Description:** Approximately 57% of Kansas' total land area is used for crop production. Subsequently, crop land contributes significantly to the State's nonpoint source pollutant loading. Nonpoint source pollutants from crop land may include: pesticides; fertilizers; nitrates; phosphates; potassium; and sediment. Best management practices to limit nonpoint source pollution from crop land may include: contour plowing; use of cover crops; proper fertilizer/pesticide application timing (avoiding rainy periods); no-till; and use of buffer strips.

## **Associated National Primary Drinking Water Standards**

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Atrazine, Alachlor, Benzene, 2,4-D, Dalapon, Dinoseb, Diquat, Glyphosate, Lindane, Lead, Nitrate, Nitrite, Picloram, Simazine, and Turbidity.

## **Regulatory**

**Experts:** Kansas Department of Agriculture

**Questions:** What water quality protection measures or BMPs are applicable for this type of farm?  
Are there any other sources of information available for facilities of this type?

## **Other**

**Experts:** County Conservation Districts  
National Resource Conservation Service (NRCS)  
Kansas State University Extension  
Kansas Rural Center  
KDHE Bureau of Water Nonpoint Source Section

# FACT SHEET

**Topic:** Agricultural/Rural

**Subject:** Grain Elevators/Co-ops

**Description:** Grain elevators and co-ops often utilize and store hazardous chemicals. These chemicals may include: fuels for farm machinery; pesticides; and fertilizers. These chemicals should be stored and handled in a manner which is protective of nearby water resources. These facilities may utilize above-ground storage tanks (ASTs) or underground storage tanks (USTs) for fuel storage. Out of date tanks and faulty secondary containment systems may present a potential threat to drinking water sources. To limit the potential for a release, USTs are required to have overfill protection, corrosion protection, and leak detection systems. These facilities may be connected to septic systems. Septic systems should only be used to dispose of domestic wastes and should not be used to dispose of hazardous materials.

## **Associated National Primary Drinking Water Standards**

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Atrazine, Alachlor, Carbofuran, Chlordane, 2,4-D, Diquat, Dalapon, 1,2-Dibromo-3-Chloropropane (DBCP), Glyphosate, Nitrate, Nitrite, Oxamyl, Picloram, Simazine, and 2,4,5-TP (Silvex).

## **Regulatory**

**Experts:** Kansas Department of Health and Environment:  
Bureau of Remediation, Storage Tank Section  
Kansas Department of Agriculture

**Questions:** Are there any ASTs or USTs at this facility?  
Are there any outstanding compliance issues at this facility?  
Is the facility connected to a septic system?  
Are there any other sources of information available for facilities of this type?

## **Other**

**Experts:** Local Fire Department

# FACT SHEET

**Topic:** Agricultural/Rural

**Subject:** Irrigation/Chemigation Well Pump Sites

**Description:** Chemigation is the application of fertilizers through irrigation systems. Fertilizers are generally stored in large tanks near wells drawing groundwater for irrigation. Fertilizers are pumped from the storage tanks into the irrigation water. During the chemigation process, there is a potential for groundwater contamination due to accidental backflow or siphoning of fertilizers into the well. This backflow or siphoning can occur when the irrigation pumping system shuts down unexpectedly. To limit the potential for backflow, the system must include: an automatic pump shut off; functional pressure switch; functional check valve; vacuum relief valve; and low pressure drain.

## **Associated National Primary Drinking Water Standards**

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Atrazine, Alachlor, Carbofuran, Chlordane, 2,4-D, Diquat, Dalapon, 1,2-Dibromo-3-Chloropropane (DBCP), Glyphosate, Nitrate, Nitrite, Oxamyl, Picloram, Simazine, and 2,4,5-TP (Silvex).

## **Regulatory**

**Experts:** Kansas Department of Agriculture

**Questions:** Does the chemigation system have the appropriate water quality protection devices?  
Are there any other sources of information available for facilities of this type?

## **Other**

**Experts:** Kansas State University Extension  
Natural Resource Conservation Service  
County Conservation District  
KDHE Bureau of Water, Nonpoint Source Section

# FACT SHEET

**Topic:** Agricultural/Rural

**Subject:** Kennels

**Description:** Kennels can accumulate large quantities of animal wastes. These kennels can contribute to nonpoint source pollution when rain or snow contact the ground surface and carry the animal wastes into nearby storm sewers, lakes, and streams. If managed improperly, animal waste from kennels can be a significant source of fecal coliform bacteria and nutrients. These facilities may be connected to septic systems. Septic systems should only be used to dispose of domestic wastes and should not be used to dispose of hazardous materials.

## **Associated National Primary Drinking Water Standards**

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Coliform Bacteria, Cryptosporidium, Giardia Lamblia, Nitrate, Nitrite, Sulfate, Turbidity, and Viruses.

**Experts:** KDHE Bureau of Water Nonpoint Source Section

**Questions:** What water quality protection measures are appropriate for this type of facility?  
Is the facility connected to a septic system?  
Are there any other sources of information available for facilities of this type?

**Other Experts:** City/County Health Departments  
Local Environmental Protection Programs  
KSU Extension

# FACT SHEET

**Topic:** Agricultural/Rural

**Subject:** Lagoons and Liquid Waste Disposal (Agricultural)

**Description:** Lagoons are a very common form of liquid waste treatment/disposal for livestock production facilities. A liquid waste disposal lagoon is an excavation or impoundment designed to promote the biological treatment of organic waste. These lagoons should be designed in a manner protective of underlying groundwater aquifers and nearby surface water bodies.

## **Associated National Primary Drinking Water Standards**

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Atrazine, Alachlor, Coliform, Cryptosporidium, Carbofuran, Diquat, Dalapon, Giardia Lamblia, Glyphosate, Nitrate, Nitrite, Oxamyl, Picloram, Sulfate, Simazine, Vinyl Chloride, and Viruses.

## **Regulatory**

**Experts:** Kansas Department of Health and Environment:  
Bureau of Water, Livestock Waste Section  
Kansas Department of Agriculture

**Questions:** Is this facility permitted by KDHE?  
Are there any outstanding compliance issues at this facility?  
What water quality protection measures are appropriate for this type of facility?  
Are there any other sources of information available for facilities of this type?

## **Other**

**Experts:** KSU Extension  
Natural Resource Conservation Service  
KDHE Bureau of Water, Nonpoint Source Section

# FACT SHEET

**Topic:** Agricultural/Rural

**Subject:** Managed Forests/Grasslands

**Description:** If managed improperly, forests and grasslands can contribute significantly to the State's nonpoint source pollutant loading. Nonpoint source pollutants from managed forests and grasslands may include: pesticides; fertilizers; nitrates; phosphates; and sediment. Best management practices to limit nonpoint source pollution from managed forests and grasslands may include: proper fertilizer/pesticide application timing (avoiding rainy periods); maintaining riparian areas; and avoidance of grassland overgrazing.

## **Associated National Primary Drinking Water Standards**

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Atrazine, Diquat, Glyphosate, Picloram, Simazine, and Turbidity.

**Experts:** KDHE Bureau of Water, Nonpoint Source Section

**Questions:** What water quality protection measures or BMPs are applicable for this land use?  
Are there any other sources of information available for facilities of this type?

## **Other**

**Experts:** County Conservation Districts  
Natural Resource Conservation Service (NRCS)  
KSU Extension  
Kansas Forest Service  
Kansas Department of Agriculture

# FACT SHEET

**Topic:** Agricultural/Rural

**Subject:** On-Farm Pesticide/Fertilizer Storage Areas

**Description:** Many agricultural producers have on-farm pesticide and/or fertilizer storage areas. These chemicals should be stored and handled in a manner which is protective of nearby water resources. To limit the potential for drinking water contamination, pesticide and fertilizer mixing should be done in-field, away from drinking water wells.

## **Associated National Primary Drinking Water Standards**

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Atrazine, Alachlor, Carbofuran, Chlordane, 2,4-D, Diquat, Dalapon, 1,2-Dibromo-3-Chloropropane (DBCP), Glyphosate, Nitrate, Nitrite, Oxamyl, Picloram, Simazine, and 2,4,5-TP (Silvex).

## **Regulatory**

**Experts:** Kansas Department of Agriculture

**Questions:** What water quality protection measures should be used for facilities of this type?  
Are there any other sources of information available for facilities of this type?

## **Other**

**Experts:** Natural Resource Conservation Service  
KSU Extension  
County Conservation Districts  
KDHE Bureau of Water, Nonpoint Source Section

# FACT SHEET

**Topic:** Agricultural/Rural

**Subject:** Rangeland/Grazing Land

**Description:** Approximately 33% of Kansas' total land area is used for livestock grazing. Nonpoint source pollutants from grazing land may include: fecal coliform bacteria; nutrients; and sediment. Best management practices to limit nonpoint source pollution from grazing lands may include: avoidance of overgrazing; riparian area management; and maintenance of buffer strips.

## **Associated National Primary Drinking Water Standards**

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Coliform, Cryptosporidium, Giardia Lamblia, Nitrate, Nitrite, Sulfate, Turbidity, and Viruses.

**Experts:** KDHE Bureau of Water, Nonpoint Source Section

**Questions:** What water quality protection measures or BMPs are applicable for this land use?  
Are there any other sources of information available for facilities of this type?

## **Other**

**Experts:** County Conservation Districts  
Kansas Rural Center  
Natural Resource Conservation Service (NRCS)  
KSU Extension  
Kansas Department of Agriculture

# FACT SHEET

**Topic:** Agricultural/Rural

**Subject:** Rural Homesteads

**Description:** Rural homesteads can have a significant affect on the environment and local water resources. On-site septic systems and lagoons must be designed and maintained to limit the potential for groundwater contamination. To limit the potential for drinking water contamination, drinking water wells should be properly designed and placed away from potential contaminant sources including pet/livestock waste areas, fuel tanks, pesticide/fertilizer mixing areas, etc.

## **Associated National Primary Drinking Water Standards**

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Atrazine, Alachlor, Carbofuran, Coliform, Cryptosporidium, cis 1,2-Dichloroethylene, trans 1,2-Dichloroethylene, Diquat, Dalapon, Giardia Lamblia, Glyphosate, Nitrate, Nitrite, Oxamyl, Picloram, Sulfate, Simazine, Vinyl Chloride, and Viruses.

**Experts:** Kansas Department of Health and Environment:  
Bureau of Water, Nonpoint Source Section

**Questions:** What water quality protection measures should be used for rural homesteads?  
Are there any other sources of information available?

**Other Experts:** Natural Resource Conservation Service  
Kansas Rural Center  
County Conservation Districts  
KSU Pollution Prevention (Home-A-Syst)

# FACT SHEET

**Topic:** Miscellaneous Sources

**Subject:** Abandoned Drinking Water Wells (Conduits For Contamination)

**Description:** There are thousands of abandoned drinking water wells in the State of Kansas. Improperly abandoned wells can act as conduits for contamination to migrate from the surface to groundwater aquifers. To avoid contaminating groundwater aquifers, abandoned drinking water wells should be plugged in accordance with local and state regulations.

## **Associated National Primary Drinking Water Standards**

The following is a list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Atrazine, Alachlor, Coliform, Cryptosporidium, Carbofuran, Diquat, Dalapon, Giardia Lamblia, Glyphosate, Methylene Chloride, Nitrate, Nitrite, Oxamyl, Picloram, Simazine, Trichloroethylene (TCE), Turbidity, Vinyl Chloride, and Viruses.

## **Regulatory**

**Experts:** Kansas Department of Health and Environment:  
Bureau of Water, Industrial Programs

**Questions:** What are the specifications for abandoning/plugging a well?  
Are there any other sources of information available?

## **Other**

**Experts:** County Conservation Districts  
KDHE Bureau of Water, Nonpoint Source Section  
KSU Extension

# FACT SHEET

**Topic:** Miscellaneous Sources

**Subject:** Above Ground Storage Tanks/Underground Storage Tanks

**Description:** Above ground storage tanks (ASTs) and underground storage tanks (USTs) are used to contain a multitude of hazardous and non-hazardous chemicals and wastes. ASTs and USTs that are in poor condition may have the potential to accidentally release their contents into the environment. ASTs should be double-walled or placed in secondary containment to limit the potential for releases. USTs should have overfill protection, corrosion protection, and leak detection to limit the potential for releases.

## **Associated National Primary Drinking Water Standards**

The following is a list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Arsenic, Barium, Benzene, Cadmium, 1,4-Dichlorobenzene, cis 1,2-Dichloroethylene, trans 1,2-Dichloroethylene, Ethylbenzene, Methylene Chloride, Lead, Toluene, Trichloroethylene (TCE), Perchloroethylene (Perc), and Xylenes (mixed isomers).

## **Regulatory**

**Experts:** Kansas Department of Health and Environment:  
Bureau of Environmental Remediation, Storage Tank Section

**Questions:** Are the ASTs or USTs registered?  
Have there been any releases reported at this facility?  
Are the ASTs or USTs currently in compliance with regulatory design requirements?  
Are there any other sources of information available?

## **Other**

**Experts:** Local Fire Department  
KDHE Bureau of Water Nonpoint Source Section  
State Conservation Commission

# FACT SHEET

**Topic:** Miscellaneous Sources

**Subject:** Gas/Oil Pipelines/Oil Fields

**Description:** Gas/Oil pipelines and oil fields may have a significant impact on the environment. Oil and gas pipelines are very common in the State of Kansas. Portions of these pipelines are above-ground; however, the majority are buried below the ground surface. Releases from these pipelines may be hard to detect.

Oil well field sites may have significant impacts on nearby water resources. Oil and gas production may release oil, salt water, and natural gases into groundwater aquifers. According to State law, every person who drills a well or test hole, for any purpose, that penetrates formations containing oil, gas, fresh water, mineralized water, or valuable minerals, shall case or seal off these formations to effectively prevent migration of oil, gas, or water from or into strata that would be damaged by this migration. Wells may also act as a conduit for the migration of surface contaminants to groundwater aquifers. Additionally, many well sites have environmental problems after abandonment. These problems may include surface soils contamination with salt and/or oils and the subsequent lack of vegetation. These areas of exposed soil are prone to soil erosion and are often difficult to re-vegetate.

## **Associated National Primary Drinking Water Standards**

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Acrylamide, Arsenic, Atrazine, Alachlor, Aluminum (Fume or Dust), Barium, Benzene, Cadmium, Carbofuran, Carbon Tetrachloride, Chlorobenzene, Copper, Cyanide, 2,4-D, 1,2-Dibromoethane, 1,2-Dichlorobenzene, , 1,4-Dichlorobenzene, 1,1-Dichloroethylene, cis 1,2-Dichloroethylene, Methylene Chloride, Di (2-ethylhexyl) Adipate, Di (2-ethylhexyl) Phthalate, 1,2-Dichloroethane, Dioxin, Endrin, Epichlorohydrin, Ethylbenzene, Hexachlorobenzene, Hexachlorocyclopentadiene, Lead, Mercury, Methoxychlor, Polychlorinated Biphenyls, Selenium, Styrene, Sulfate, Tetrachloroethylene, Toluene, 1,2,4-Trichlorobenzene, 1,1,1-Trichloroethane, Trichloroethylene (TCE), Vinyl Chloride, Xylene (Mixed Isomers), and Zinc (Fume or Dust).

## **Regulatory**

**Experts:** Kansas Corporation Commission

**Questions:** Has there been a release reported for this site?  
What water quality protection measures should be in place?  
Are there any other oil/gas wells in the vicinity?  
Are there any other sources of information available for facilities of this type?

# FACT SHEET

**Topic:** Miscellaneous Sources

**Subject:** Military Installations

**Description:** There are a wide variety of hazardous and non-hazardous substances associated with military operations. Potential pollutants associated with military installations may include: lead and other metals; radioactive wastes; biological wastes; explosives; propellants; fuels; solvents; and oils. These pollutants may originate from a multitude of activities/sources including: vehicle maintenance/fueling; aircraft fueling; shooting ranges; and ammunition manufacturing/storage.

## **Associated National Primary Drinking Water Standards**

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Arsenic, Barium, Benzene, Cadmium, Chlorobenzene, 1,2-Dichlorobenzene, 1,2-Dichloroethane, cis 1,2-Dichloroethylene, trans 1,2-Dichloroethylene, Methylene Chloride, Hexachlorobenzene, Lead, Mercury, Methoxychlor, 1,1,1-Trichloroethane, Radionuclides, Selenium, Perchloroethylene (Perc), Toluene, and Trichloroethylene (TCE).

## **Regulatory**

**Experts:** Kansas Department of Health and Environment:  
Bureau of Environmental Remediation

**Questions:** Is this facility regulated by KDHE?  
Has there been a release reported at this site?  
Are there any outstanding compliance issues at this site?  
Are there any other sources of information available for facilities of this type?

# FACT SHEET

**Topic:**           **Miscellaneous Sources**

**Subject:**       **Naturally Occurring Pollutants**

**Description:** There are a wide variety of naturally occurring substances which can degrade the quality of water resources. These substances may include: bacteria; chlorides (salts); sulfates; nitrates; phosphates; sediment; aquatic vegetation; and metals. Although these substances are naturally occurring, they may contribute to water quality degradation when concentrations increase. In Kansas there are several human activities that tend to concentrate these pollutants, including: irrigation; fertilizer application; human and livestock waste disposal; and over-use of water resources (lowering of the water table/lack of stream flow).

## **Associated National Primary Drinking Water Standards**

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Arsenic, Asbestos, Barium, Cadmium, Chromium, Coliform, Copper, Cryptosporidium, Fluoride, Giardia Lamblia, Iron, Lead, Manganese, Mercury, Nitrate, Nitrite, Radionuclides, Selenium, Silver, Sulfate, Turbidity, Viruses, and Zinc.

**Experts:**       KDHE Bureau of Water, Nonpoint Source Section

**Questions:**   What can be done to limit the naturally occurring pollutant?  
Are there any other sources of information available for pollutants of this type?

## **Other**

**Experts:**       KSU Extension  
Natural Resource Conservation Service  
County Conservation Districts

# FACT SHEET

**Topic:** Miscellaneous Sources

**Subject:** Point Sources

**Description:** Point sources are discrete conveyances such as pipes or man made ditches. The Clean Water Act requires that all point sources that discharge to the waters of the United States must obtain a National Pollutant Discharge Elimination System Permit (NPDES). NPDES permits are designed to limit the amount and types of pollutants associated with point source discharges in order to protect the receiving water body. Pollutants often associated with point source discharges may include: human wastes; livestock wastes; other domestic wastes (laundry/bath waters, sink disposal wastes); toxic chemicals; heated water; oil and grease; metals; bacteria; nutrients; and pesticides. Facilities or activities which typically require NPDES permits may include: confined animal feeding operations; municipal wastewater plants; industrial facilities; construction sites disturbing greater than one acre of land; and storm water discharge from urbanized areas.

## Associated National Primary Drinking Water Standards

The following is a partial list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Arsenic, Cadmium, Coliform Bacteria, Barium, Benzene, Cryptosporidium, cis 1,2-Dichloroethylene, trans 1,2-Dichloroethylene, Methylene Chloride, Fluoride, Giardia Lamblia, Lead, Mercury, Nitrate, Perchloroethylene (Perc), pH, Selenium, Sulfate, Trichloroethylene (TCE), Toluene, Turbidity, Vinyl Chloride, Viruses, and. Xylene (mixed isomers).

## Regulatory

**Experts:** Kansas Department of Health and Environment:  
Bureau of Water, Industrial Programs  
Bureau of Water, Municipal Programs

**Questions:** Does the facility have an NPDES Permit?  
Are there any outstanding compliance issues regarding this facility?  
Has a KDHE project manager been assigned to this facility?  
Are there any other sources of information available for facilities of this type?

## Other

**Experts:** EPA Office of Wastewater Management

# FACT SHEET

**Topic:** Miscellaneous Sources

**Subject:** Underground Injection Control (UIC) Wells

**Description:** Many wastes are “injected” into the subsurface as a means of disposal. These underground injection wells are regulated federally by the EPA and locally by the KDHE Bureau of Water Industrial Program. The Underground Injection Control (UIC) Program was formed to prevent injection wells from contaminating drinking water resources. These wells are categorized according to the type of waste they inject. Class I wells are technologically sophisticated wells that inject large volumes of hazardous and non-hazardous wastes into deep, isolated rock formations that are separated from the lowermost drinking water aquifer by many layers of impermeable clay and rock. Class II wells inject fluids associated with oil and natural gas production (mostly brine). Class III wells inject super-hot steam, water, or other fluids into mineral formations, which is then pumped to the surface and extracted. Class IV wells inject hazardous or radioactive wastes into or above underground sources of drinking water (these wells are banned under the UIC Program). Class V wells use injection practices not included in the other classes (i.e. cesspools).

## Associated National Primary Drinking Water Standards

The following is a list of National Primary Drinking Water Contaminants, which have designated Primary Drinking Water Standards for public water supplies. These contaminants may be associated with the sources listed above; however, the listing of a contaminant does not mean that it will always be present.

**Potential Contaminant:** Acrylamide, Arsenic, Atrazine, Alachlor, Aluminum, Ammonia, Barium, Benzene, Cadmium, Carbofuran, Carbon Tetrachloride, Chlorobenzene, Copper, Cyanide, 2,4-D, 1,2-Dibromomethane, 1,2-Dichlorobenzene, 1,4-Dichlorobenzene, 1,1-Dichloroethylene, cis 1,2-Dichloroethylene, Methylene Chloride, Di (2-ethylhexyl) Adipate, Di (2-ethylhexyl) Phthalate, Ethylene Dichloride, Dioxin, Endrin, Epichlorohydrin, Hexachlorobenzene, Hexachlorocyclopentadiene, Lead, Mercury, Methoxychlor, Oxamyl, Polychlorinated Biphenyls, Selenium, Styrene, Sulfate, Perchloroethylene (Perc), Toluene, 1,2,4-Trichlorobenzene, 1,1,1-Trichloroethane, Trichloroethylene (TCE), Vinyl Chloride, Xylene (mixed isomers), and Zinc.

## Regulatory

**Experts:** Kansas Department of Health and Environment:  
Bureau of Water, Industrial Programs (Class I, III, IV, and V Wells)  
Kansas Corporation Commission (Class II Wells Only)

**Questions:** Are there any existing compliance issues regarding these wells?  
Are there any other sources of information available for these wells?

## **INDEX OF EXPERT PANEL MEMBERS**

## **POTENTIAL SOURCES/EXPERT PANEL MEMBERS**

### **Topics:**

Commercial/Industrial Facilities  
Residential/Municipal  
Agricultural/Rural  
Miscellaneous Sources

### **Individual Source (By Topic):**

**! Suggested Expert Panel Member**

#### ***Commercial/Industrial Facilities***

##### **Analytical Laboratories**

**!** KDHE Bureau of Waste Management  
**!** KDHE Division of Health and Environmental Laboratories  
**!** KDHE Pollution Prevention  
**!** KSU Pollution Prevention  
**!** EPA Office of Pollution Prevention  
**!** EPA RCRA Division  
**!** Local Fire Department

##### **Automotive Repair Shops (Body Shops)**

**!** KDHE Bureau of Waste Management  
**!** KDHE Pollution Prevention  
**!** KSU Pollution Prevention  
**!** KDHE Bureau of Environmental Remediation, Storage Tank Section  
**!** EPA Office of Pollution Prevention  
**!** EPA RCRA Division  
**!** Local Fire Department

##### **Boat Services/Repair/Refinishing**

**!** KDHE Bureau of Waste Management  
**!** KDHE Pollution Prevention  
**!** KSU Pollution Prevention  
**!** EPA Office of Pollution Prevention  
**!** EPA RCRA Division  
**!** Local Fire Department

##### **Car/Truck Washes**

**!** KDHE Bureau of Water, Industrial Programs  
**!** City Wastewater Departments/County Health Departments

#### Cement/Concrete Plants/Asphalt Plants

- ! KDHE Bureau of Waste Management
- ! KDHE Pollution Prevention
- ! KSU Pollution Prevention
- ! KDHE Bureau of Environmental Remediation, Storage Tank Section
- ! EPA Office of Pollution Prevention
- ! EPA RCRA Division
- ! Local Fire Department

#### Chemical/Petroleum Processing/Storage

- ! KDHE Bureau of Waste Management
- ! KDHE Bureau of Water, Industrial Programs
- ! KDHE Pollution Prevention
- ! KSU Pollution Prevention
- ! KDHE Bureau of Environmental Remediation, Storage Tank Section
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- ! EPA Office of Pollution Prevention
- ! EPA RCRA Division
- ! Local Fire Department

#### Construction Sites

- ! KDHE Bureau of Water, Industrial Programs
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- ! KDHE Pollution Prevention
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- ! KDHE Bureau of Waste Management
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- ! EPA Office of Pollution Prevention

#### Gas Stations

- ! KDHE Bureau of Environmental Remediation, Storage Tank Section
- ! Local Fire Department

#### Graveyards/Cemeteries

- ! KDHE Bureau of Water, Nonpoint Source Section
- ! KSU Extension
- ! Kansas Department of Agriculture

#### Hardware/Lumber Yards/Parts Stores

- ! Local Fire Department

#### Historic Waste Dumps/Landfills

- ! KDHE Bureau of Waste Management
- ! KDHE Bureau of Environmental Remediation
- ! EPA RCRA Division
- ! EPA CERCLA Division
- ! Kansas Water Office

#### Junk/Scrap/Salvage Yards

- ! KDHE Bureau of Waste Management
- ! City/County Health Departments
- ! KDHE Pollution Prevention
- ! KSU Pollution Prevention
- ! EPA Office of Pollution Prevention

#### Landscape/Lawn Maintenance

- ! KDHE Bureau of Water Nonpoint Source Section
- ! City/County Health Departments
- ! EPA Office of Pollution prevention
- ! KDHE Pollution Prevention
- ! KSU Pollution Prevention
- ! KSU Extension
- ! Kansas Department of Agriculture

#### Manufacturing Facilities

- ! KDHE Bureau of Waste Management
- ! KDHE Bureau of Water, Industrial Programs
- ! KDHE Pollution Prevention
- ! KSU Pollution Prevention
- ! KDHE Bureau of Environmental Remediation, Storage Tank Section
- ! EPA Office of Pollution Prevention
- ! EPA RCRA Division
- ! Local Fire Department

#### Marinas

- ! KDHE Bureau of Environmental Remediation, Storage Tank Section (ASTs)
- ! KDHE Bureau of Water, Nonpoint Source Section
- ! Local Fire Department
- ! KDHE Pollution Prevention
- ! KSU Pollution Prevention
- ! EPA Office of Pollution Prevention

#### Medical/Dental/Vet Offices

- ! KDHE Bureau of Waste Management
- ! City/County Health Departments
- ! KDHE Division of Health and Environmental Laboratories

#### Metal Plating/Finishing/Fabricating /Machine Shops (Tool and Dye Shops)

- ! KDHE Bureau of Waste Management
- ! KDHE Bureau of Water, Industrial Programs
- ! EPA RCRA Division
- ! KDHE Bureau of Environmental Remediation, Storage Tank Section
- ! KDHE Pollution Prevention
- ! KSU Pollution Prevention
- ! EPA Office of Pollution Prevention
- ! Local Fire Department

#### Mines/Gravel Pits

- ! KDHE Bureau of Environmental Remediation, Surface Mining Section
- ! KDHE Bureau of Water, Nonpoint Source Section

#### Office Building/Complex

- ! City/County Health Department
- ! KDHE Bureau of Water, Nonpoint Source Section

#### Oil/Gas Well Sites

- ! Kansas Corporation Commission
- ! Kansas Corporation Commission
- ! KDHE Bureau of Environmental Remediation, Storage Tank Section
- ! KDHE Bureau of Waste Management

#### Parking Lots

- ! KDHE Bureau of Water, Nonpoint Source Section
- ! City/County Health Departments

#### Photo Processing/Printing

- ! KDHE Bureau of Waste Management
- ! EPA RCRA Division
- ! KDHE Pollution Prevention
- ! KSU Pollution Prevention
- ! EPA Office of Pollution Prevention
- ! Local Fire Department

#### RV/Mini Storage

- ! KDHE Bureau of Waste Management
- ! Local Fire Department
- ! KSU Pollution Prevention
- ! KDHE Pollution Prevention
- ! EPA Office of Pollution Prevention

#### Railroad Yards/Maintenance/Fueling Areas

- ! KDHE Bureau of Waste Management
- ! KDHE Bureau of Environmental Remediation, Storage Tank Section
- ! EPA RCRA Division
- ! Local Fire Department
- ! KSU Pollution Prevention

#### Wood/Pulp/Paper Processing

- ! KDHE Bureau of Waste Management
- ! KDHE Bureau of Water, Industrial Programs
- ! EPA RCRA Division
- ! Local Fire Department
- ! KSU Pollution Prevention
- ! KDHE Pollution Prevention
- ! EPA Office of Pollution Prevention

### ***Residential/Municipal***

#### Airports (Maintenance/Fueling Areas)

- ! KDHE Bureau of Waste Management
- ! KDHE Storage Tank Section
- ! EPA RCRA Division
- ! Local Fire Department
- ! KSU Pollution Prevention

#### Apartments and Condominiums

- ! KDHE Bureau of Water, Nonpoint Source Section
- ! City/County Health Department

#### Camp Grounds/RV Parks

- ! KDHE Bureau of Water, Nonpoint Source Section
- ! City/County Health Department
- ! Local Environmental Protection Program

#### Cesspools

- ! KDHE Bureau of Water, Nonpoint Source Section
- ! KDHE Bureau of Water, Industrial Programs
- ! City/County Health Department

! Local Environmental Protection Program

Drinking Water Treatment Facilities

! KDHE Bureau of Water, Public Water Supply Programs  
! City/County Health Department

Fairgrounds

! KDHE Bureau of Water, Nonpoint Source Section  
! KDHE Bureau of Water, Livestock Waste Section  
! City/County Health Department

Fire Stations

! City/County Health Department  
! State Fire Marshal's Office  
! KDHE Pollution Prevention  
! KSU Pollution Prevention  
! EPA Office of Pollution Prevention

Golf Courses/Sports Complexes/Urban Parks

! KDHE Bureau of Water Nonpoint Source Section  
! City/County Health Department  
! Kansas Department of Agriculture Plant Health Division  
! KSU Pollution Prevention

Highway/Street/Road Maintenance Yards

! KDHE Bureau of Water, Nonpoint Source Section  
! KDHE Bureau of Environmental Remediation, Storage Tank Section  
! KDHE Bureau of Waste Management  
! EPA RCRA Division  
! Local Fire Department  
! KSU Pollution Prevention

Hospitals

! KDHE Bureau of Waste Management  
! City/County Health Department  
! KDHE Division of Health and Environmental Laboratories

Housing Developments

! KDHE Bureau of Water, Nonpoint Source Section  
! City/County Health Department  
! Local Environmental Protection Programs  
! KDHE Pollution Prevention  
! KSU Pollution Prevention  
! City/County Public Works/Planning Departments

Landfills/Dumps

! KDHE Bureau of Waste Management  
! KDHE Bureau of Environmental Remediation

- ! EPA RCRA Division
- ! EPA CERCLA Division
- ! Kansas Water Office
- ! City/County Solid Waste Authorities

Public Buildings (i.e. schools, town halls, civic centers)

- ! City/County Health Department
- ! City/County Public Works/Planning Departments
- ! Local Environmental Protection Programs
- ! KDHE Pollution Prevention
- ! KDHE Bureau of Waste Management
- ! KSU Pollution Prevention
- ! EPA Office of Pollution Prevention

Septic Systems/ Single Family Lagoons/Septic Tanks/Lateral Fields

- ! KDHE Bureau of Water, Nonpoint Source Section
- ! City/County Health Department
- ! Local Environmental Protection Programs
- ! KSU Pollution Prevention

Sewer Lines

- ! KDHE Bureau of Water, Municipal Programs
- ! KDHE Bureau of Water, Nonpoint Source Section
- ! City/County Health Department
- ! Local Environmental Protection Programs

Storm Water Infiltration Basins/Dry Wells

- ! KDHE Bureau of Water, Nonpoint Source Section
- ! City/County Health Department
- ! Local Environmental Protection Programs
- ! KDHE Bureau of Water Industrial Programs

Utility Stations/Maintenance Areas

- ! KDHE Bureau of Waste Management
- ! KDHE Storage Tank Section
- ! EPA RCRA Division
- ! Local Fire Department
- ! Kansas Department of Agriculture
- ! KSU Pollution Prevention

Waste Transfer/Recycling Centers

- ! KDHE Bureau of Waste Management
- ! EPA RCRA Division
- ! City/County Health Department
- ! KDHE Pollution Prevention
- ! KSU Pollution Prevention
- ! EPA Office of Pollution Prevention

#### Wastewater Treatment Facilities

- ! KDHE Bureau of Water, Nonpoint Source Section
- ! KDHE Bureau of Water, Industrial Programs
- ! City/County Health Department
- ! KDHE Bureau of Water, Municipal Programs

#### *Agricultural/Rural*

##### Auction Lots/Boarding Stables/Fair Grounds

- ! KDHE Bureau of Water, Livestock Waste Section
- ! KDHE Bureau of Water, Nonpoint Source Section
- ! County Conservation District
- ! Natural Resource Conservation Service
- ! KSU Extension
- ! Kansas Department of Agriculture

##### Animal Feeding Operations/Confined Animal Feeding Operations

- ! KDHE Bureau of Water, Livestock Waste Section
- ! KDHE Bureau of Water, Nonpoint Source Section
- ! Kansas Rural Center
- ! County Conservation District
- ! Natural Resource Conservation Service
- ! KSU Extension

##### Crops-Irrigated and Non-Irrigated

- ! KDHE Bureau of Water, Nonpoint Source Section
- ! Kansas Rural Center
- ! County Conservation District
- ! Natural Resource Conservation Service
- ! KSU Extension
- ! Kansas Department of Agriculture

##### Grain Elevators/Coops

- ! KDHE Storage Tank Section
- ! Local Fire Department
- ! Kansas Department of Agriculture

##### Irrigation/Chemigation Well Pump Sites

- ! KDHE Bureau of Water, Nonpoint Source Section
- ! County Conservation District
- ! Natural Resource Conservation Service
- ! KSU Extension
- ! Kansas Department of Agriculture

#### Kennels

- ! KDHE Bureau of Water, Nonpoint Source Section
- ! KSU Extension
- ! Local Environmental Protection Programs
- ! City/County Health Department

#### Lagoons and Liquid Waste Disposal (Agricultural)

- ! KDHE Bureau of Water, Livestock Waste Section
- ! KDHE Bureau of Water, Nonpoint Source Section
- ! KSU Extension
- ! Natural Resource Conservation Service
- ! Kansas Department of Agriculture

#### Managed Forests/Grass Lands

- ! Kansas Forestry Service
- ! KSU Extension
- ! Natural Resource Conservation Service
- ! KDHE Bureau of Water, Nonpoint Source Section
- ! Kansas Department of Agriculture
- ! County Conservation Districts

#### Pesticide/Fertilizer Storage Facilities

- ! Kansas Department of Agriculture
- ! KDHE Bureau of Water, Nonpoint Source Section
- ! Natural Resource Conservation Service
- ! KSU Extension
- ! County Conservation District

#### Rangeland/Grazing Lands

- ! KDHE Bureau of Water, Nonpoint Source Section
- ! County Conservation District
- ! Kansas Rural Center
- ! Natural Resource Conservation Service
- ! KSU Extension
- ! Kansas Department of Agriculture

#### Rural Homesteads

- ! KDHE Bureau of Water, Nonpoint Source Section
- ! County Conservation District
- ! Kansas Rural Center
- ! Natural Resource Conservation Service
- ! KSU Pollution Prevention

#### *Miscellaneous Sources*

#### Abandoned Drinking Water Wells (Conduits For Contamination)

- ! KDHE Bureau of Water, Nonpoint Source Section
- ! KDHE Bureau of Water, Industrial Programs
- ! KSU Extension
- ! County Conservation District

#### Above-ground Storage Tanks/Underground Storage Tanks

- ! KDHE Bureau of Environmental Remediation, Storage Tank Section
- ! Local Fire Department
- ! KDHE Bureau of Water, Nonpoint Source Section
- ! State Conservation Commission

#### Gas/Oil Pipelines/Oil Fields

- ! Kansas Corporation Commission

#### Military Installations

- ! KDHE Bureau of Environmental Remediation

#### Naturally Occurring

- ! KDHE Bureau of Water, Nonpoint Source Section
- ! KSU Extension
- ! Natural Resource Conservation District
- ! County Conservation District

#### Point Sources

- ! KDHE Bureau of Water, Industrial Program
- ! KDHE Bureau of Water, Municipal Program
- ! EPA Office of Wastewater Management

#### Underground Injection Control (UIC) Wells-Class I and Class II

- ! Kansas Corporation Commission (Class II only (Oil and Gas))
- ! KDHE Bureau of Water, Industrial Program (Class I, III, IV and V Wells)

**CONTACT INFORMATION FOR EXPERT PANEL  
MEMBERS**

# **EXPERT PANEL MEMBERS**

## **Contact Information**

**City/County Health Departments (See local phone book under City/County Offices)**

**County Conservation Districts (See State Conservation Commission)**

**Kansas Corporation Commission**

Finney State Office Building  
130 South Market, Room 2078  
Wichita, KS 67202-3810  
Phone: (316) 337-6200

**Kansas Department of Agriculture**

901 South Kansas Avenue  
Topeka, KS 66612-1281  
Phone: (785) 296-2263

**Kansas Rural Center**

304 Pratt Street  
Whiting, KS 66552  
Phone: (785) 873-3431  
E-Mail: ksrc@rainbowtel.net

**Kansas State University Extension (See local phone book under County Offices)**

**Kansas Forestry Service**

2610 Claflin Road  
Manhattan, KS 66502-2798  
Phone: (785) 532-3300

**Kansas State University (KSU) Pollution Prevention**

133 Ward Hall  
Manhattan, KS 66506-2508  
Phone: (785) 532-6501 or (800) 578-8898

**KCARE**

Kansas State Research and Extension  
Kansas State University  
044 Waters Hall  
Manhattan, KS 66506  
Phone: (785) 532-7103

**Kansas Water Office**

109 South West 9<sup>th</sup> Street, Suite 300

Topeka, KS 66612-1249  
Phone: (785) 296-3185

**Kansas Department of Health and Environment**

Forbes Field, Building 740  
Topeka, KS 66620-0001  
Bureau of Environmental Remediation Phone: (785) 296-1660  
Tanks Section Phone: (785) 296-1678  
Bureau of Waste Management Phone: (785) 296-1600  
Division of Health and Environmental Laboratories Phone: (785) 296-1620

**Kansas Department of Health and Environment**

Forbes Field, Building 283  
Topeka, KS 66620-0001  
Bureau of Water  
Industrial Programs Phone: (785) 296-5524  
Livestock Waste Section Phone: (785) 296-6432  
Municipal Programs Phone: (785) 296-5525  
Nonpoint Source Section Phone: (785) 296-4195  
Pollution Prevention Program Phone: (785) 296-0669

**Kansas Department of Health and Environment  
District Offices:**

**Northwest District Office**

2301 E. 13<sup>th</sup>  
Hay, KS 67601  
Phone: (785) 625-5664

**Southwest District Office**

302 W. McArtor Road  
Dodge City, KS 67801  
Phone: (316) 225-0596

**North Central District Office**

2501 Market Place, Suite D & E  
Salina, KS 67401  
Phone: (785) 827-9639

**South Central District Office**

130 S. Market, 6<sup>th</sup> Floor  
Wichita, KS 67202  
Phone: (316) 337-6020

**Northeast District Office**

800 W. 24<sup>th</sup> Street

Lawrence, KS 66046  
Phone: (785) 842-4600

**Southeast District Office**

1500 W. 7<sup>th</sup> Street  
Chanute, KS 66720  
Phone: (316) 431-2390

**Local Environmental Protection Programs (Contact your County Health Department)**

**Local Fire Departments**

**National Resource Conservation Service (See local phone book under County Offices)**

**State Conservation Commission**

109 South West 9<sup>th</sup> Street  
Suite 500, Mills Building  
Topeka, KS 66612-1299  
Phone: (785) 296-3600

**State Fire Marshal's Office**

Jayhawk Tower  
700 South West Jackson Street, Suite 600  
Topeka, KS 66603  
Phone: (785) 296-3401

**U.S. Environmental Protection Agency, Region 7**

901 North 5<sup>th</sup> Street  
Kansas City, Kansas 66101  
RCRA Division Phone: (913) 551-7020  
CERCLA (Superfund) Division Phone: (913) 551-7050  
Pollution Prevention Phone: (913) 551-7517